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TELEPHONE: CENTRAL 3617  
TELEGRAMS: "CHEMICUS,  
CANNON, LONDON" (2 Words)

PUBLISHED WEEKLY AT 42 CANNON ST., LONDON, E.C.4.

SUBSCRIPTION WITH  
DIARY 20/- PER ANNUM  
SINGLE COPIES 9d.

No. 2470.

JUNE 11, 1927.

Vol. CVI.



## THE BEST HOUSE FOR ALL PHARMACEUTICAL PRODUCTS

*Proprietors of the "Silver Churn" Dairy Preparations.*

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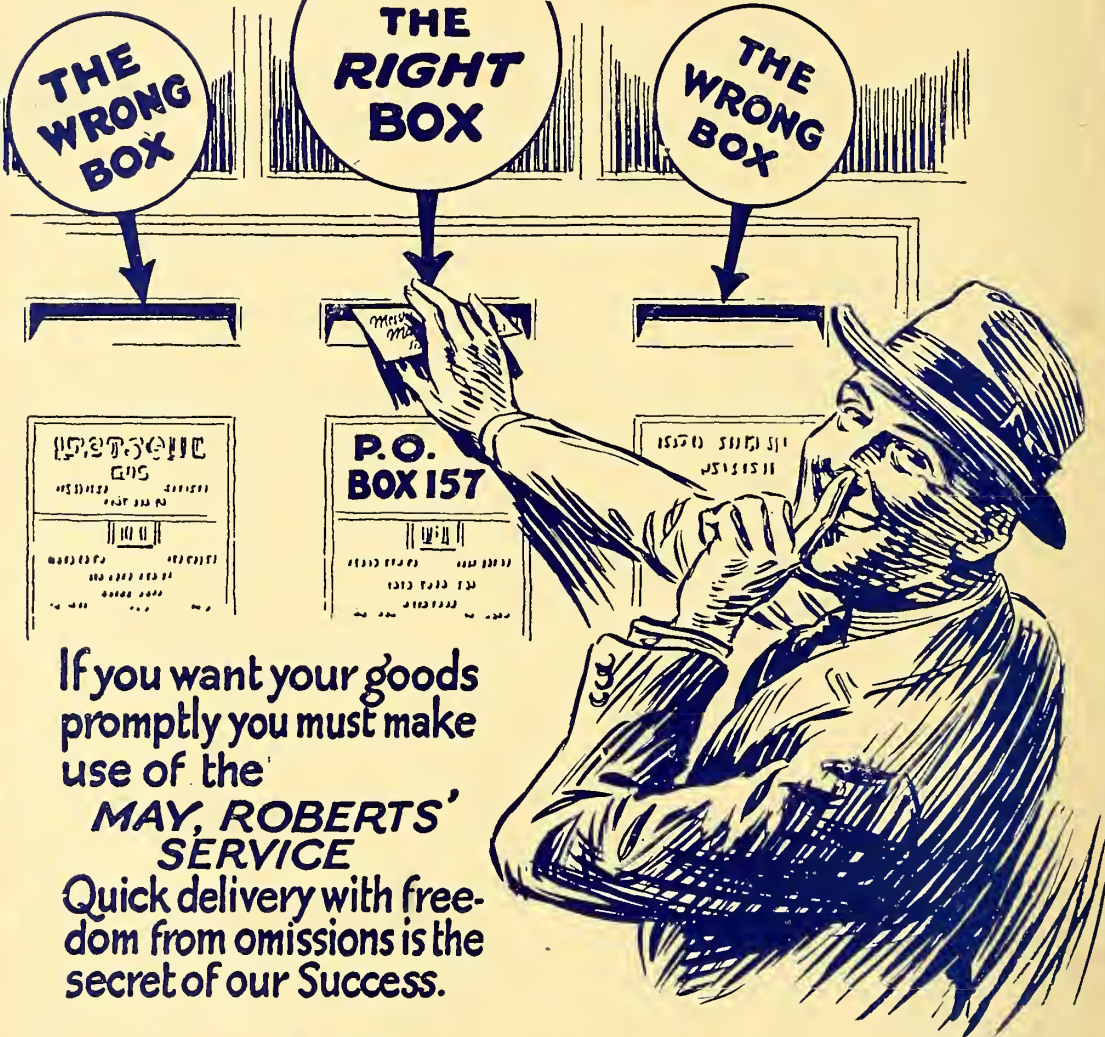
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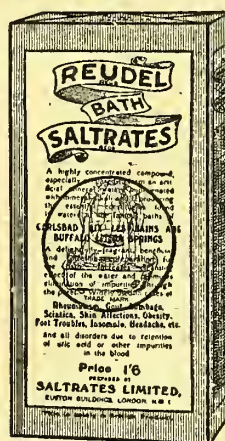
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(C)	3 "	3/3	Alkia Saltrates	...	...	"	31/-	"	"	"	£4 13 0*

### ASSORTED CASES.

(D)	2 doz.	1/6	Reudel Bath Saltrates	...	...	@	13/6	per doz.	...	...	£1 7 0
	1/2 "	2/6	"	"	"	"	22/6	"	"	...	£0 11 3
	1/2 "	3/3	Alkia Saltrates	...	...	"	31/-	"	"	...	£0 15 6
										costs you	£2 13 9*
(E)	2 doz.	1/6	Reudel Bath Saltrates	...	...	@	13/6	per doz.	...	...	£1 7 0
	1 "	2/6	"	"	"	"	22/6	"	"	...	£1 2 6
										costs you	£2 9 6*

### \*WINDOW DISPLAY TERMS.

\*NOTE.—3 doz. parcels ... .. list prices less 2 1/2% discount.  
 6 " " made up of any above cases " " " 5% "  
 12 " " " " " " " " " 7 1/2% "  
 Free "Cases." Carriage Paid "on" all "Orders" of 3 "dozen and over." Sales Guaranteed.

\*As consideration for the above Special Discount, we require only that you display in your window for 14 days (but not with competitive lines) the Showcards accompanying the order, also at least one dozen of our products.

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# "StaffAllensS"

## POWDERED TRAGACANTH





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## CHEMICAL FOOD

PROFITABLE repeat business and satisfaction is ensured when you specialise in "Specialty" Chemical Food.

It is prepared from an original tested formula, and is of a rich brilliant colour and delicious fruity flavour. Guaranteed to be a pure phosphate syrup made from pure cane sugar and free from excess of acidity and the inky flavour usually associated with ordinary Chemical Food.

"Specialty" Chemical Food is supplied either in bulk or packed in various styles. It will pay you to send for samples and prices.



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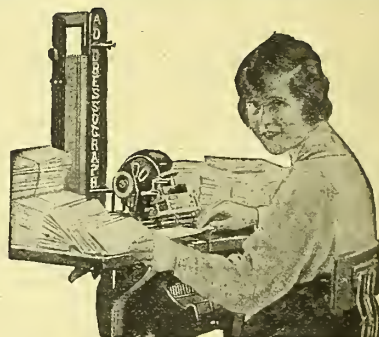
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# Hovenden's Superior Soaps

## BATH SOAP

NEW LINE—SPLENDID VALUE



No. 4712A

ASSORTED COLOURS AND PERFUMES.

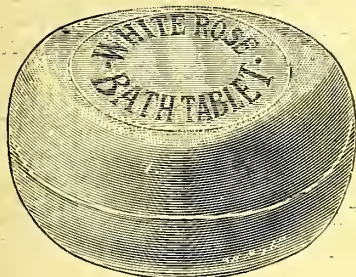
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Each Tablet weighing about 5½ Ounces.

Assorted, 4/9 doz. 55/6 gross.

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ASSORTED PERFUMES



No. 4621

Large size, 7/6 doz.; 84/- gross.

Boxed in ½-dozens.

Each Tablet weighing about 7 ozs.



No. 4621A

Boxed in Dozens.

3/9 dozen Tablets.

42/- gross.

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No. 5010. (As illustrated.) Highly Perfumed.

3 Tablets in Box. 12/- doz. boxes.

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89-95 CITY ROAD, E.C.1.

Clerkenwell 7601 (3 lines).



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16-oz. tin and FLIT Hand Sprayer	-	42/-
32-oz. tins	-	42/-
128-oz. tins	-	143/-
FLIT Hand Sprayer	-	19/-

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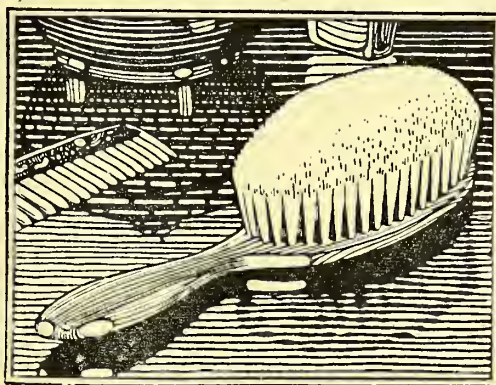
# Maw's



# Page

## This Is "Meritor" Time.

Holiday time is hair brush time, especially "Meritor" hair brush time. Nobody going on holiday likes to take a dowdy, worn hair brush to the seaside hotel or boarding house, and many a brush can be sold by a timely reminder during the next few weeks. And of all hair brushes, the most satisfactory the pharmacist can sell is the "Meritor," because there is a wide range of patterns, materials and prices; because every sale yields 50% on cost and because when you sell a "Meritor" brush you make a permanent customer for the pharmacy, as "Meritor" brushes, like all Maw's goods, are sold only to pharmacists.

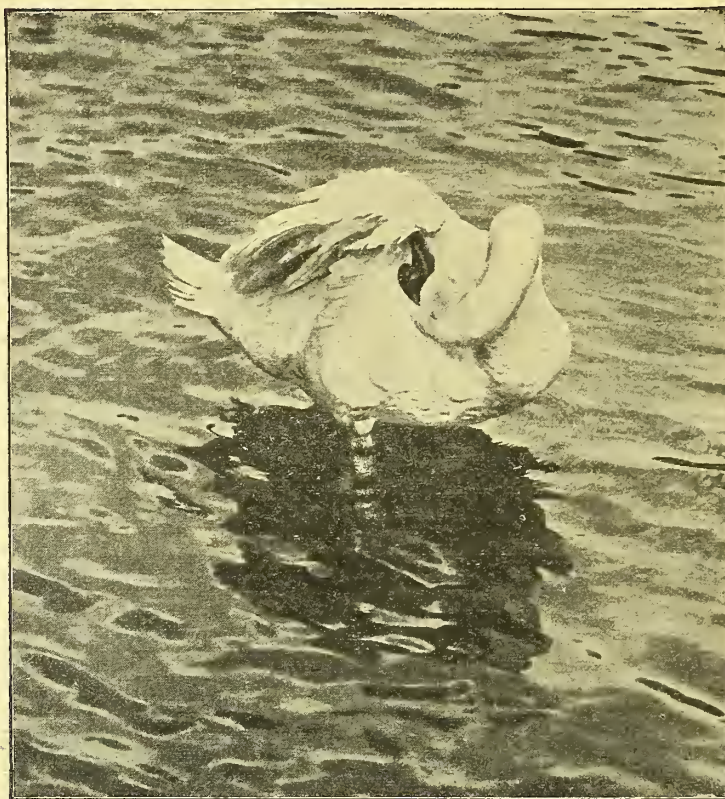


S. Maw, Son & Sons, Ltd.,  
Aldersgate St., London,  
and Barnet.





# THE SWAN



ON the lake is the centre of attraction, it is true it spends a quarter of its time in preparing its Toilet. The duck could spend three-quarters of its time preparing its toilet but would never command the same attention. Don't try to make your Ducks into Swans, but begin properly, let your printing be of the best, then your Window Dressing is simple.

**THOMAS WAIDE & SONS Ltd.**  
**THE CHEMISTS' PRINTERS**  
**KIRKSTALL ROAD - - LEEDS**



# CUPIDOL



Cupidol is not only a preventive against insect bites but it gives instant relief. It is non-poisonous and is not greasy. So refreshingly perfumed that customers come back for more.

Price in Great Britain :

Wholesale - 9/- doz.

Retail - 1/3 each.

*Evans*

**EVANS SONS LESCHER & WEBB, LTD.**  
LIVERPOOL & LONDON

# AN ANNOUNCEMENT

---

We are able to inform the numerous clients of C. Tolkien & Co., the old established and widely known makers of MALT EXTRACT and Packers of Chemists' Specialities, that a reconstruction is taking place and that a Company, with the introduction of new Capital, is now in course of formation and will continue the business in the name of

## C. TOLKIEN & CO., LTD.

The Company are in an exceptionally good position for booking Contracts and Orders for their Manufactures and are able to assure the Trade, without qualification, of their ability to offer every detail which makes for progress and efficiency in their business.

The Company possess an up-to-date, modern and complete plant for the manufacture of

## MALT EXTRACT

on an extensive scale, controlled and conducted on the latest scientific principles by an expert staff, thus enabling them with confidence to guarantee the continuance of a product par excellence in quality and second to none on the market.

Whilst the Company are in this unique and favourable position for supplying advantageously Malted Products, they nevertheless attach importance to the other Specialities and Proprietaries in which they are interested, and therefore in soliciting enquiries and orders, full assurance is given that in all matters their clients' interests are their first study.

The Company now offer :—

**STERLING QUALITY  
REASONABLE PRICES  
QUICK DESPATCH**

in other words

**THE BEST SERVICE**

**COMMERCIAL MILLS, BLACKBURN, LANCS.**



*Ask for it*  
*— buy from it*  
**NOW!**

**Sell  
 more  
 Dressings  
 by  
 Dressing  
 the  
 window**

The wide-awake chemist is buying Dressings NOW—before the full effect of spoiled crops and flooded areas is felt.

*Our guarantee of quality and adherence to specification continues until your customer has become a satisfied user.*

**AYRTON, SAUNDERS & CO., Ltd.**

34 Hanover Street

LIVERPOOL

ENGLAND



**AYRTON'S  
 PRICE  
 LIST**

OF QUALITY DRESSINGS  
 AND SURGICAL APPLIANCES

AYRTON, SAUNDERS & CO., LTD.



Regd Trade Mark

## An Old Trade Mark— And its Vital Meaning

The above is the trade-mark of the genuine and original Lysol made by Messrs. Schulke and Mayr A.G., of Hamburg, which won the complete confidence of the British public and the Medical profession.

This mark, together with the original German formula, is, to-day, our property, and continues to represent the original Lysol now well known as MARSHALL'S LYSOL.

It is the sign of Lysol quality. It marks the finest Lysol it is possible to make, always stable and uniform, containing absolutely no free alkali (which is the cause of causticity and irritation in many Lysols) and containing the lowest percentage of inert ingredients of any Lysol.

Marshall's Lysol is made to a quality — not to a price. It is the best Lysol. In your own interests you should sell no other.

**MARSHALL'S**  
GENUINE ORIGINAL  
**Lysol**

LYSOL, LTD., RAYNES PARK, LONDON, S.W. 20.





# The EASINESS of "DISTOL" OTTOS

Take 2 to 4 drachms of any "Distol" according to the strength required, and add S.V.R. and Aqua Dest. to make up to twenty ounces

*—and that's all!*

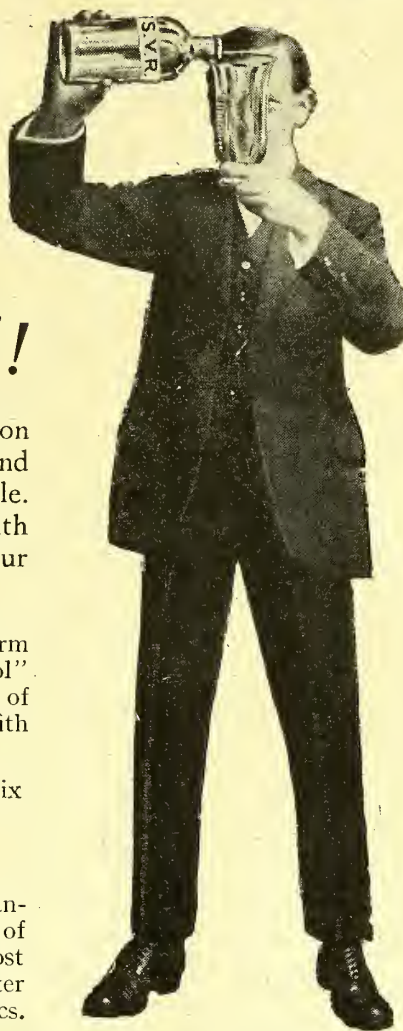
Nothing could be easier than the preparation of good perfumery from "Distol" Ottos, and the economies that result are considerable. Make up your proprietary perfumes with "Distol" Ottos. Use "Distols" for your own distinctive toilet preparations.

There are 45 "Distols" selling at the uniform price of 7/6 per ounce. An ounce of any "Distol" makes 80 ozs. of good perfumery, or 40 ozs. of "De Luxe" quality, such as will compete with the most expensive brands on the market.

Ask for samples of perfumes made from any six "Distols." Post free on request.

## "Distols" and Spirit Economy

"Distol" perfumery can be made in small quantities as required, thus obviating the locking-up of capital in extensive stocks of S.V.R. Most "Distols" lend themselves to dilution with water without loss of their distinctive characteristics.



*Kerfoot Quality is Chemists' Quality*

THOMAS KERFOOT & CO. LTD.  
BARDSLEY VALE, LANCASHIRE,  
& Bardsley House, London, N.1  
ESTABLISHED 1797.

B'891

COPYRIGHT



# DEARBORN (1923) LTD.

37 Gray's Inn Road, London, W.C.1

## Toilet Specialties.

	Price per doz. to Retailer	Selling Price P.A.T.A.
<b>PILENTA SOAP</b> ..	10/-	1/-
A complexion soap.		
<b>PROLACTUM</b> ..	10/-	1/-
For the lips.		
<b>PARSIDIUM JELLY</b> ..	10/-	1/-
For wrinkles.		
<b>ALLACITE OF ORANGE</b>		
<b>BLOSSOM</b> ..	22/6	2/6
A dressing cream.		
<b>BORANIUM</b> ..	22/6	2/6
A hair tonic.		
<b>CLEMINITE</b> ..	22/6	2/6
For a face lotion.		
<b>COLLIANDUM</b> ..	22/6	2/6
For a face tint.		
<b>PERGOL</b> ..	22/6	2/6
A deodorant.		
<b>TEKKO PASTE</b> ..	22/6	2/6
Camphor cream.		
<b>STALLAX</b> ..	13/6	1/6
For a shampoo.		
<b>JETTALINE</b> ..	31/6	3/6
For clearing the skin.		
<b>PHEMINOL</b> ..	36/-	4/-
A depilatory.		
<b>MENNALINE</b> ..	36/-	4/-
For the eyelashes.		
<b>MERCOLIZED WAX</b> ..	18/-	2/-
A face cream.		
<b>STYMOL</b> ..	36/-	4/-
For oily complexion and blackhe ads.		
<b>SILMERINE</b> ..	22/6	2/6
Hair-curling fluid.		
<b>BARSYDE</b> ..	22/6	2/6
Dandruff eradicator.		
<b>TAMMALITE</b> ..	22/6	2/6
For grey and faded hair.		
<b>LIQUID PERGOL</b> ..	31/6	3/6
To check excessive perspiration locally.		
<b>BICROLIUM</b> ..	22/6	2/6
For whitening the hands.		
<b>COCONOIDS</b> ..	31/6	3/6
For figure development.		

### The Products of

Messrs. PARKER, BELMONT & CO.

<b>CLYNOL BERRIES</b> ..	36/-	4/-
For obesity.		
<b>SOFT PALERIUM</b> ..	45/-	5/-
For wrinkles.		
<b>LIQUID NAIL POTASH</b> ..	10/-	1/-
Brilliant and lasting.		

Stocked by ALL Wholesale Houses.

### FOREIGN AND COLONIAL DEPOTS AND AGENCIES.

South Africa: LENNON, LTD., Cape Town, etc.  
 India: FRAMJEE & SON, Bombay.  
 A. L. CHOUDRY, Calcutta.  
 New Zealand: SHARLAND & CO., Auckland and Wellington.  
 Holland: N. V. v/h HENRI SANDERS, Amsterdam.  
 Denmark: KARL SCHULTZ & CO., Copenhagen.  
 Sweden: ENEQUIST HOLME & CO., A/B, Stockholm.  
 Irish Free State: MAY, ROBERTS & CO., LTD., Dublin.

## GOOD PROFIT!



ANZORA is the recognised Hair Dressing for men, and the demand now is greater than ever. Do not disappoint new customers by not stocking. Order a supply to-day and secure your share of the profits.

# ANZORA

*Masters the Hair!*

Anzora Cream for greasy scalps and Anzora Viola for dry scalps. Obtainable from Wholesalers, together with a free supply of window cut-outs.

TRADE TERMS { 12/- doz. Retail at 18/-  
 20/- doz. Retail at 30/-

If unable to obtain from your Wholesaler write direct to  
**Anzora Perfumery Co., Ltd., London, N.W.6**

# KIRBEE

BRITISH BLADES  
 that mean  
**BIGGER PROFITS**

MADE IN  
 SHEFFIELD

Selling at  
**5 for 1/-**  
**10 for 2/-**

KIRBEE Blades have proved the enormous success we expected, for the public have discovered that this Sheffield blade is cheaper and better than foreign makes. Link up with our vigorous advertising by a good display (bright sales-aids on request) and secure our big discounts. Trade terms, literature, etc., on application.

Complete range of factorial lines. Please write for list.  
**DOUGLAS KIRBY & CO., LTD., 9/10 Charing Cross,**  
**LONDON, S.W.1. Telephone: Gerrard 3147, 8063/4/5.**

GLASGOW - 47 OSWALD STREET, C.1.

## Manicure Requisites

Wholesale & Export Only.  
 Made by a British Firm  
 at Competitive Prices.

Orange Sticks, Emery Boards, &c., carded & boxed

Send your enquiries to-day to the British  
 Firm with 35 years' experience.

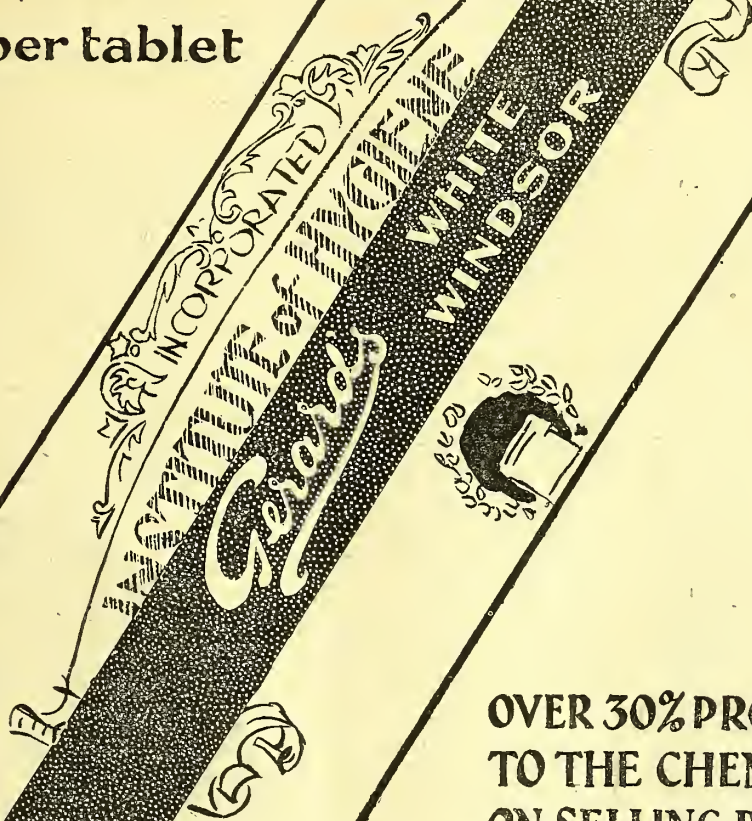
**Robert Lee**

14 Calverley Grove, Upper  
 Holloway, London, N.



This style supplied to  
Chemists only

12 oz TABLETS  
6<sup>d</sup> per tablet



OVER 30% PROFIT  
TO THE CHEMIST  
ON SELLING PRICE

GERARD BROS LTD  
SOAP WORKS  
NOTTINGHAM

SPURWAY ET CIE, LTD.

SPURWAY ET CIE, LTD.

"Off the Beaten Track."

**SPURWAYS**FOR ORIGINAL AND EXCLUSIVE  
FRENCH SUNDRY LINES**PERFUME BURNERS**

(Electrical—110 and 220 volt)

An entirely novel line of Vaporisers made with highly artistic shell material. Ideal ornaments for the dinner table, drawing-room or boudoir.

**PUFF BOWLS**

In new French lacquer material. Exquisite colour effects. Original &amp; quaint designs.

**STATUETTES**

A novel line of beautiful female models by a well-known French artist, exquisitely moulded and dressed in various dainty costumes—for window display with toilet and perfumery lines.

The models and poses are most refined.

An irresistible attraction for the window.

ORDERS NOW BEING BOOKED FOR AUTUMN DELIVERY

**SPURWAY ET CIE, LIMITED,**  
**89 GREAT EASTERN STREET, LONDON, E.C.2.**

Telegrams: "Neroli, London."

Factories & Distilleries: Cannes-Grasse, Riviera.  
NEW YORK.

Telephone: Bishopsgate 1372.

Technical Laboratories: Paris.  
KINGSTON (ONTARIO).

SPURWAY ET CIE, LTD.

SPURWAY ET CIE, LTD.

**The "PEANCO" &  
"BRIDGEWATER"****WATER WAVING COMBS**British Patent No. 240,377.  
Patented in all Countries.HOW TO PLACE "PEANCO"  
COMBS IN HAIR.  
Note the 2 clips.No. 1. 3½ inch. No. 3. 4½ inch.  
No. 2. 4 " No. 4. 5 "**8/9 doz. pairs.** Boxed  
dozens.

Obtainable from—

MAY, ROBERTS &amp; CO., LTD., 7 Clerkenwell Rd., E.C.1; BARCLAY &amp; SON, 95 Farringdon St., E.C.1; SANGERS &amp; CO., LTD., 42a Hampstead Rd., N.W.; F. H. GALLOWAY &amp; CO., LTD., 162 Walworth Rd., S.E.; BUTLER &amp; CRISPE, LTD., 80 Clerkenwell Rd., E.C.1; FRANCIS NEWBURY &amp; SONS, LTD., 27 Charterhouse Sq., E.C.1, and all Wholesale Chemists and Druggists.

Manufacturers and Suppliers to the Wholesale only.

**PARKER & CO. (London) LTD.** 4/5 BRIDGEWATER SQUARE,  
LONDON, E.C.1.THE SALES TO DATE HAVE  
EXCEEDED2,000,000  
Pairs2,000,000  
Pairs**Two Million Pairs**The special purpose of  
this Advertisement is to  
invite all Retailers to  
send to the Manufac-  
turers for the two**New Show Cards**FREE OF CHARGE AND  
POSTAGE FREE.**REALLY WORKS OF ART**HOW TO PLACE "BRIDGEWATER" COMBS  
IN HAIR.

Note the 3 clips.

Length 10 inches for long waves.

**12/9 doz. pairs.** Boxed  
dozens.



# SPARKLETS




Sparkling drinks  
made instantly  
with a

SPARKLET SYPHON



FREE  
with each  
Syphon  
purchased



This highly attractive Window Show can be expeditiously installed. Its "units" with installation guide will be sent on request with goods despatched against orders placed on terms of the **"SPARKLETS" BONUS OFFER** — See over 

BRITISH  
ISLESSEASON  
1927.

# SPARKLETS

Orders for the following quantities will qualify for :—

## WINDOW DISPLAY BONUS

For a Qualifying Order of—	Free Bonus of—
6 "C" Syphons (or more*) @ 81/- doz. (subject) 4 doz. bxs. "C" Bulbs @ 33/- doz. bxs.     "	<u>4 bxs. "C" Bulbs—</u> Equivalent to a <b>14.0</b> Selling value of—
6 "C" Syphons (or more*) @ 81/- doz. (subject) 6 doz. bxs. "C" Bulbs @ 33/- doz. bxs.     "	<u>8 bxs. "C" Bulbs—</u> Equivalent to a <b>£1.8.0</b> selling value of
6 "C" Syphons (or more*) at 81/- doz. (subject) 12 doz. bxs. "C" Bulbs at 33/- doz. bxs.     "	<u>18 bxs. "C" Bulbs—</u> Equivalent to a <b>£3.3.0</b> selling value of
*SYPHONS remaining unsold after six months from date of purchase will be credited on return.	

## DISCOUNTS

5% for cash in 14 days or 2½% in 28 days. Extra discount off Bulbs.—12 doz.  
bxs. "C" Bulbs and over 2½%; 60 doz. bxs. and over 5%.

## TRADE BONUS



The above Bonuses are given to Retailers in return for Sparklets Window Shows for which "units" to install the display illustrated over-leaf will be included with the goods. The maximum Bonus of 18 Bxs. Bulbs cannot be proportionately increased in respect of any order in excess of 12 doz. bxs. Bulbs.

## FREE OFFER TO PUBLIC



With each "C" Syphon ordered the manufacturers will include ONE GIFT BOX containing ¼-doz. SPARKLET "C" BULBS and SYPHON SPARE PARTS FREE, for presentation to each purchaser of a Sparklet Syphon (8/9).

SPARKLETS LIMITED, Upper Edmonton, London, N.18.



For cordials, fruit syrup etc, use  
**SOLUBLE OILS** — six times as  
 strong as essences.

For lemonade powder etc, use  
**J. Special ESSENCES** — and  
 keep your powder dry.

**White, Tomkins & Courage Ltd.**  
 North Albert Works, Reigate, Surrey.



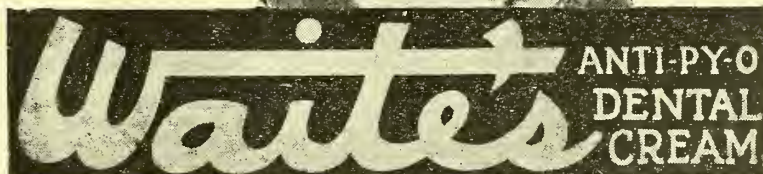
## Special Announcement!

We can now state,  
 in response to  
 numerous enquiries,  
 that



is obtainable  
 from the  
 leading  
 Druggists'  
 Sundriesmen.

*Get your share  
 of the Business!*



*(The Dentifrice Dentists Recommend)*

This is the famous  
 Dr. WAITE'S FORMULA dentifrice  
 manufactured in England by

**The Dental Manufacturing Co. Ltd**  
 Alston House, Newman St  
 LONDON. W.1.



# YOUR WINDOW INVITES CUSTOM

## MAKE IT ATTRACTIVE WITH

# FLOWER OILS

THE  
LATEST  
DRESSING  
FOR  
THE  
HAIR



VIOLETS.



ROSES.



JASMIN.

HANDSOME  
SHOWCARDS  
SUPPLIED.

Bottles.

2½ oz.	6/- doz.
3 oz.	6/6 „
4 oz.	7/6 „
5 oz.	8/6 „
6 oz.	9/6 „
8 oz.	11/- „

SEND FOR OUR ILLUSTRATED CATALOGUE.

JULES FRÈRES LTD., 154/164 Walworth Road, S.E.17.

## MORGAN'S POMADE

A genuine preparation which performs all that it claims—namely, to restore grey and faded hair to its original colour, to strengthen the hair against further danger of becoming dry and thin, to remove and prevent the recurrence of scurf and all unhealthy conditions of the scalp.

Thirty-five years' solid reputation. On the list of the P.A.T.A.

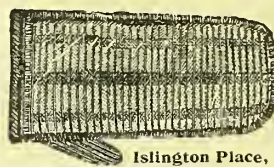
Retail 1/9 per pot; 3/3 per doz.  
Wholesale 14/- per doz.; 26/- per doz.  
1-lb. jars for Saloon use at 6/3 per jar.

Increase your Sales by Displaying a Framed Showcard. Limited Supply held. Send Trade Card for same at once.

Obtainable from all the leading Wholesale Houses, or direct—  
**THE MARIE ANTOINETTE CO.** 149, JUNCTION ROAD  
LONDON, N.19

(Note New Address)

(2)



Specialists in the Manu-  
facture of—

**HORSEHAIR FLESH  
GLOVES,  
BATH GLOVES &c.**

Wholesale and Export.

**LAWRENCE & CO.**  
Islington Place, Cloudeley Road, London, N.1.



## GREY HAIRS

← appear just here.

TOUCH THEM UP WITH

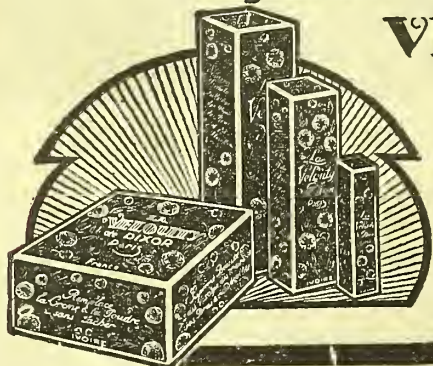
**TATCHO-TONE**

and they will instantly recover their  
natural shade. Medical Guaranty with  
each bottle. Chemists' Prices 2/6 and 4/6

**TATCHO-TONE CO., 5 Great Queen Street, London, W.C.2**

Trials Philal

8<sup>0</sup>  
Post Free



## VELOUTÉ de DIXOR PARIS... COMBINED CREAM AND POWDER

The advertised line that you are asked for

NOW ON P.A.T.A.

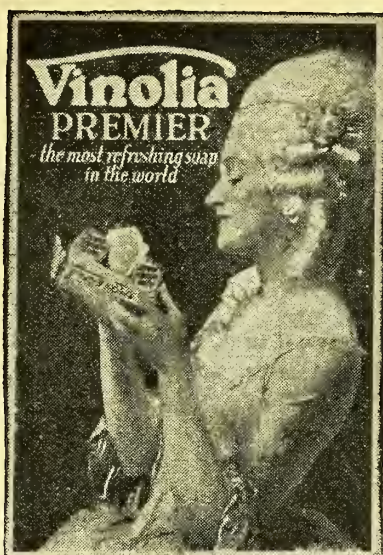
Samples free upon receipt of tradecard or billhead

Prices:—Full size pot	21/- doz.	Retail .. ..	2/9
Super Tube	22/-	„ .. ..	3/-
Large „	14/-	„ .. ..	2/-
Medium „	7/-	„ .. ..	1/-
Handbag „	3/-	„ .. ..	6d.

Made in three shades: WHITE, IVORY and NATURAL

Obtainable from your regular Wholesaler or direct from the Sole British Agents:  
**DEBACQ & HARROP, 68 Newman Street, Oxford Street. LONDON, W.1**



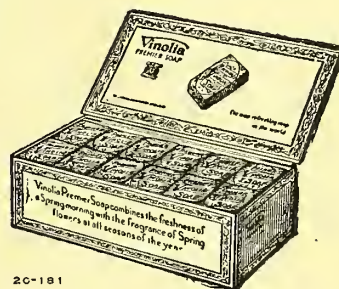


No. 6 Pompadour Poster.



22.103

Box of 12  
Bath size  
as price list



20-181

Box of 36  
double-wrapped oval tablets  
as price list

## The Year's Best Poster

One of the many forms of National Advertising that will help to make Vinolia Premier your premier seller if you link up with displays.

Thousands of posters of this design, in 2 sizes and in many colours, will be exhibited throughout the Summer on the London Tubes and on railway stations—particularly in the holiday resorts—all over the country. Specimens 20" x 30" for display on your window will be supplied on application.

**Vinolia**  
**PREMIER SOAP**

*The most refreshing soap in the world*

VT 32-29-00

WRITE FOR SPECIAL TERMS—VINOLIA CO. LTD., BEBINGTON, CHESHIRE





## From Baby to Grandma

From baby to grandma, Sorbo Sponges—treating with equal tenderness the dimples and the wrinkles—make of every contented user a constant friend!

Everyone on the other side of your counter should use a Sorbo. Those who do so already come back for more: those, alas! whose lives have hitherto been Sorbo-less, will be attracted by the display and the texture and the colour and the luxury idea!

Sorbo sponges offer you a steady profit all the year round. A sound investment for you in rubber-sponge!

### You'll sell SORBELLE!

The newer Sorbo range of sponges—Sorbelle—sells at prices which compare favourably with the foreign article. Sorbelle has all the Sorbo consistency and softness, and again like Sorbo, soap improves it.

Order now from your Wholesaler. If any difficulty write us. Price list and trade terms on application.

# Sorbo sponge

THE MOST ABSORBENT RUBBER-SPONGE  
SORBO RUBBER-SPONGE PRODUCTS, LTD.  
Sorbo Works, Woking, Surrey.  
Telegrams: "Sorbo, Woking." Telephone: Woking 966  
(2 lines)

## Chemical Works "Flora"

DUBENDORF, ZURICH - SWITZERLAND

Manufacturers of

## SYNTHETIC & AROMATIC CHEMICALS

Offer special compositions for BRILLIANTINES, soluble in oil and alcohol, in the following odours:

CARNATION 233  
EAU DE COLOGNE 375  
EAU DE COLOGNE 1926  
JASMIN 50  
JASMIN  
JASMIN 1137  
JOCKEY CLUB 258  
LILAC 151  
LILY OF THE VALLEY C.H.  
ROSE 2565  
VIOLET A  
VIOLET B 256  
WALLFLOWER 234

We recommend these on account of their strength and cheap price.

Samples and particulars from—

CHAS. ZIMMERMANN & CO. (Chemicals), LTD.  
St. Mary-at-Hill, London, E.C.3

*Why not an "Oddment"  
or "Yellow Ticket"  
Sale*

to clear those "job" lines?

List No CD. 979 of Tickets and Posters specially prepared for this purpose sent free on request

Dudley & Company, Limited,  
558/576, Holloway Rd London. N.7  
City Showrooms: 65, Fore St. E.C.2

## NURSE HARVEY'S MIXTURE

A safe, simple and reliable remedy for Children's Ailments is advertised so extensively in the daily and weekly Press as to bring mothers to the retailer without effort on his part.

The selling has been done before the mother reaches the chemist, and, having supplied her, it is only common sense to claim she will buy other family necessities from him. Moreover, the continuous demand for it produces a quick turnover.

For Direct Terms apply to—

OSCAR SCRUTON & CO., YORK



# TELLING THE DENTIST

By advertising and direct propaganda work among professional men, The House of Squibb is building up business for you on a firm and lasting foundation.

Here you see reproductions of Squibb's advertisements which are regularly appearing in the "British Dental Journal," "Mouth Mirror," and "Oral Topics."

In the dental and medical profession, it is being every day more widely recognised that Squibb's Dental Cream (containing 50% Magma Magnesia) is a dentifrice of essential value to the Dental Profession and public. With positive cleansing power it combines the highest possible efficiency compatible with safety to the Gums and Teeth, easily redeeming its claims as an ideal for general oral prophylaxis.

**Accept  
this offer  
now!**

As sole selling and distributing agents for Squibb's Dental Cream, we are authorised in addition to the above to sample a few dentists who are personal friends of stockists. Therefore please notify us of any names and addresses you have in mind, and we will gladly give this matter our prompt attention with a view to promoting immediate and profitable business for you.

**J. C. GAMBLES & CO. Ltd.**

(Sole selling and distributing agents  
for Great Britain and Ireland),

211 - 215, Blackfriars Road,  
London, S.E.1

## SQUIBB'S DENTAL CREAM

E. R. SQUIBB & SONS  
New York U.S.A.



Manufacturing Chemists to the  
**SQUIBB'S**  
AT LAST  
The Professional  
Dentifrice

The Dental Profession's most earnest search has been for the means to prevent serious conditions. The House of Squibb, Chemists to the Profession since 1858, has for a number of years conducted a most thorough scientific investigation, the scope of which is without parallel in the history of preventive dentistry. Based on the facts revealed by this research, the result of years of chemical experiment, the Dental Cream is now offered the Dental Profession a product that meets all the long-standing requirements of oral hygiene so far as the dentifrice is concerned.

Medical Profession since 1858  
PAGE

Manufacturing Chemists to the  
**SQUIBB'S**  
MAGMA MAGNESIA  
VS.  
Harsh Abrasives  
Astringent Chemicals  
Caustic Alkalines

The value of Squibb's Dental Cream lies not in the fact that it is a dentifrice, but in the fact that it is a dentifrice of the highest quality. Years of clinical experience have proved to the Dental Profession the unparalleled efficacy of Magma Magnesia in the neutralisation of mouth acidity, a primary cause of dental decay. You, after years of careful research and experiment, have found that the successful employment of Magma Magnesia as the basic ingredient of Squibb's Dental Cream will maintain the requisite alkaline salinity from tooth to tooth, and will thereby prevent the formation of insidious cavities and the subsequent decay of the teeth. Equally vital to the preservation of the soft tissue is the absence of harsh abrasives, astringents, and of caustic alkalies. The Dental Cream of Squibb is Dental Cream in the truest sense of the word.

Medical Profession since 1858  
PAGE

Manufacturing Chemists to the  
**SQUIBB'S**  
Research Made  
Squibb's Dental Cream  
Professionally Perfect

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Vol. XLVIII No. 6  
**The Dental Journal.**  
Journal of the  
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March, 1926.  
**THE MOUTH MIRROR**  
Journal of the  
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**ORAL TOPICS**  
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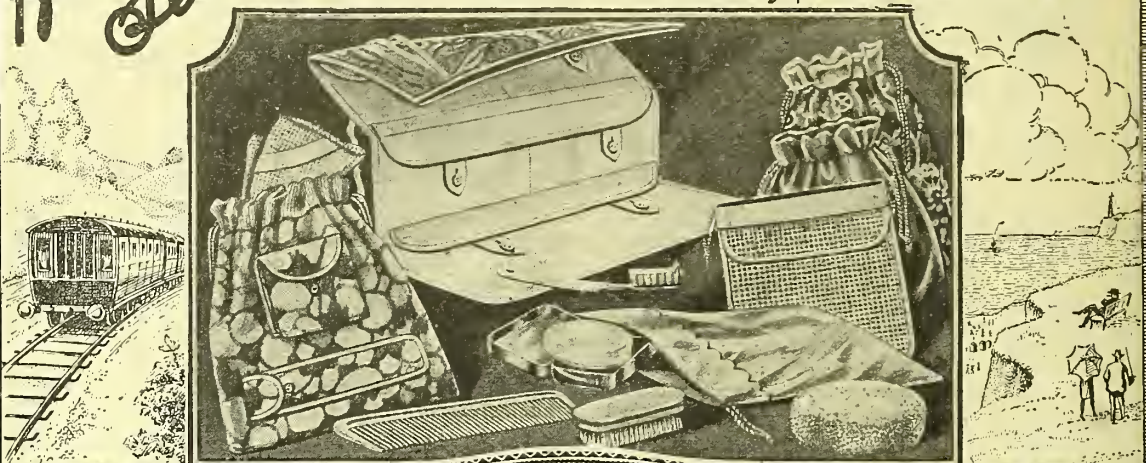
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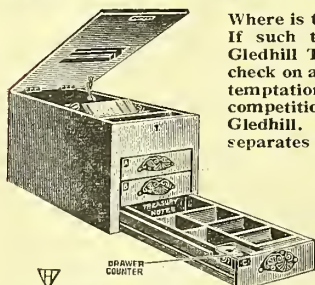


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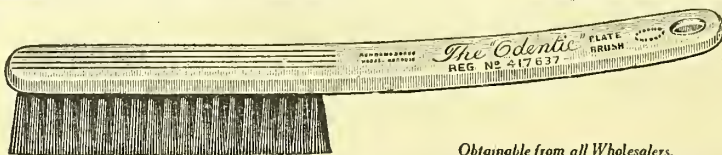
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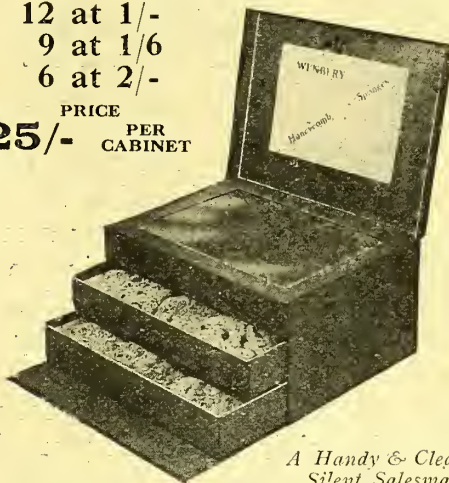
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# Window Show

**SEE COUPON ON PAGE 32.**



# ENERGETIC

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of .....  
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YORKSHIRE EVENING POST		BIRMINGHAM MAIL
WESTERN MAIL	TORBAY EVENING EXPRESS	HULL DAILY MAIL
NORTH MAIL (NEWCASTLE DAILY CHRONICLE)		
ELFAST TELEGRAPH	IRISH INDEPENDENT	IRISH TIMES

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## Recent Patents

Abstracts of specifications of recently-granted patents for inventions. The complete specification (1s. each including postage) of any British patent can be obtained from the Patent Office, 25 Southampton Buildings, London, W.C.2, on quoting the name of the patentee and the number of the patent.

**Container for Iodine Tincture.**—A container for corrosive or medicinal liquids, perfumes, etc., permitting direct application to the skin. (Antonio Marino, Barcelona. 268,672.)

**Soap Cakes.**—An improved shape of soap cake which will afford a hold for the hand and will not slip when the hand is wet. (Clarence L. Burgher, New York. 268,561.)

**Iodised Pyridine Derivatives.**—A process for iodising pyridine derivatives containing amino or hydroxyl groups in the 2- or 4- positions, consisting in treating such derivatives with iodine, or substances furnishing iodine, in a faintly alkaline or neutral medium and with substances capable of binding the liberated hydroiodic acid—e.g., salts of weak acids like carbonic acid or boric acid. (Deutsche Gold und Silver Scheideanstalt, Frankfurt. 246,501.)

## English and Welsh News

The Editor will be obliged if subscribers will send him marked copies of newspapers containing items of interest for insertion in this or other news sections.

### Beauty Exhibition

A Beauty Exhibition and Pageant is being held under the auspices of the "Daily Sketch" at Holland Park Hall, London, W., from June 8 to 18, and the exhibitors, numbering nearly fifty, almost without exception have arranged their displays in a most artistic manner. Demonstrations of beauty culture, hairdressing competitions, mannequin parades and "Britain's twelve most beautiful girls" are other features of the show. Chemists, however, while being well able to appreciate beauty, will find greater interest in the beautifiers, and the majority of the exhibitors and their products are already well known in the drug trade. Among these are: T. F. Bristow & Co., Ltd.; Camomile Tonic Co.; W. B. Cartwright, Ltd. (Elfrida preparations); Gladys Cooper's Beauty Preparations; Cussons, Sons & Co., Ltd.; Cyona Co. (Zyte and Cyona products); Debaeq & Harrop (Velouté de Dixor); Kaylene, Ltd. (Kakrispa bread); Kolynos, Inc.; Lynn & Co. (elastic stockings and Van Ess Hair Tonic); Milton Proprietary, Ltd.; D. & J. Misell (essential oils and perfumes); R. J. Reuter Co., Ltd. (sprays and 4711 eau de Cologne); John Morgan Richards & Sons, Ltd. (Marinello beauty products); Tokalon, Ltd.; Wright, Layman & Umney, Ltd.; Zee-Kol Manufacturing Co. (Shavex). Violet ray and similar apparatus is also shown by a number of exhibitors, including Ajax, Ltd.; I. Calvete, Ltd.; White's Manufacturing Co., Ltd.; and Wonder Ray, Ltd.

### Private Arrangements

A meeting of creditors of Mr. T. F. Reynolds, trading as Reynolds Pure Drug Co., 3 Queen Street, Market Drayton, was held recently. It was stated that the liabilities were £281 1s. 9d. (trade creditors, £166 7s. 5d.), with assets £28 13s. 10d. net. It appeared that the debtor commenced trading in 1925 with a free capital of £180. After six months the business was removed to the present address. A full set of books had not been kept, but apparently the turnover had not exceeded £14 a week. The business had been affected through the debtor's ill health. A resolution was passed confirming a deed of assignment which had been executed. The following are among the creditors:—Ayrton, Saunders & Co., Ltd., £22; May, Roberts & Co., Ltd., £50; Potter & Clarke, Ltd., £10; Reade Bros. & Co., Ltd., £10.

A meeting of the creditors of Mrs. Fanny Northen, trading as W. Phillips & Co., chemists, 215-217 Lewisham High Road, London, S.E., was held in London on May 31, when Mr. A. G. White stated that the liabilities amounted to £705 11s. (trade creditors, £643 1s. 6d.). The assets amounted to £400, which was the sum offered for the purchase of the business. From that amount had to be deducted £212 9s. 3d. in respect of preferential creditors, which left net assets £187 10s. 9d. The business had been carried on by the late Mr. C. E. Northen, and he died about two years ago leaving a will under which very little free property was left. The household furniture was left to the widow. For some time past the business had suffered through lack of working capital, and during the last few months the turnover had averaged about £6 a week. Possession of the premises had now been given to the purchaser. It was decided that the debtor should, if necessary, be called upon to execute a deed of assignment in favour of Mr. White as trustee. The following are among the creditors:—Butler & Crispe, £302; Evans Sons Lescher & Webb, Ltd., £71; Kodak, Ltd., £30; Warrick Bros., Ltd., £23.

A meeting of the creditors of Mr. William Watson, manufacturing chemist, trading as Hall & Provan, 43 South Lane, Rochdale, was held recently at 4 Cannon Street, Manchester. The statement of affairs presented showed ranking liabilities £20,789 1s. 5d. (unsecured, £10,647 6s. 2d.). The assets were estimated to realise £14,753 11s. 10d. (net, £14,597 0s. 2d.). The assets consisted of: stock estimated to realise £1,500; book-



debts expected to produce £7,857 14s. 7d.; cash, £3 17s. 3d.; fixtures and fittings, £310; transport, valued at £880; and investments, £212. It was reported that the debtor commenced trading as a wholesale dealer, more than thirty years ago, at 1A Lomax Street, Rochdale. The debtor took over an existing business. He had a capital of his own of something like £12,000, and borrowed £3,000 from friends, which was soon repaid. The debtor was very successful for several years. It was stated that he purchased securities to the extent of £40,000 to £50,000, and they were deposited with the bank and had depreciated in value. During the year ended March 1924 the sales at Lomax Street amounted to £105,418, but the gross profit was at the rate of 8.1 per cent., and there was a net loss of £165. In the following twelve months the sales fell to £99,962, and the gross profit went down to 7.6 per cent., with a net loss of £283. During the year to March 1926 the sales further declined to £92,225, while the gross profit was at the rate of 6.9 per cent., and there was a loss of £1,235. For the year to March 31 last the sales were £91,469 and there was a loss of £1,108. It was pointed out that the losses were arrived at after allowing for the bank charges, which in each year had exceeded £1,000. With regard to the South Lane business, that was acquired by the debtor five years ago, and during the eight months to December 31, 1922, the sales were £1,963, with a net profit of £391. It was estimated that since last September a net profit had been earned at South Lane of something like £20. The drawings had been at the rate of £12 per week. The debtor's wife had advanced approximately £2,000, in respect of which no claim was being made. During the discussion which took place a number of creditors spoke highly of the debtor. It was pointed out that his deficiency was more than accounted for by the losses sustained on the depreciation of the security held by the bank, while for the purposes of the statement the assets had been written down by nearly £4,000. A resolution was passed confirming the deed of assignment already executed to Mr. A. A. Yorke, and a committee was also appointed. The following are among the creditors:—Brook, Parker & Co., Ltd., £42; Brunner, Mond & Co., Ltd., £32; Cadbury Bros., Ltd., £55; Chesebrough Manufacturing Co., £180; J. & J. Colman, Ltd., £49; Dee Oil Co., Ltd., £33; C. R. Harker, Stagg & Morgan, Ltd., £181; Lever Bros., Ltd., £36; Robinson & Sons, Ltd., £44.

### Fires

The following outbreaks of fire have been recorded since our last report:—

An outbreak occurred on June 1 at the premises of the Helia Chemical Manufacturing Co., Ltd., 10 Brighton Terrace, Brixton, London, S.W. Some turpentine and some beeswax were destroyed.

The premises of Mr. W. H. Stopforth, chemist and druggist, Chorley, were involved in an outbreak of fire on June 8. The flames were mainly confined to a store-room, where the stock was damaged.

A slight outbreak occurred on June 1 at Canal Bank, Deptford, London, S.E., the premises occupied by A. J. Dickinson, Ltd., manufacturing chemists, through tar boiling over. The damage was not of a serious nature, a quantity of tar being destroyed and a still slightly damaged.

### Liverpool

The weather during the holidays was very unsettled, with the result that chemists have not done much photographic business.

A party of sixty members and friends of the Liverpool Chemists' Association journeyed by motor-coach to Stonyhurst on June 8 for their annual picnic.

### Manchester

Quite a large number of Manchester and district pharmacists and their women-folk are going to Brighton. One prominent member of the Conference has arranged to make the journey in his motor-car.

A well-known suburban chemist received a mild shock on June 4. Returning from the city with his wife, he was astonished to find two fire engines, police and a huge crowd trying to locate a fire outside his premises. A false alarm had been circulated.



Photo]

[Cleworth

Mr. L. H. BOARDMAN, Pereira Medallist,  
at work in the Manchester College of Pharmacy.

### Sheffield

Payments to chemists for Insurance dispensing during the past month totalled £2,961, the largest amount since the service commenced.

An amended scheme for testing Insurance dispensing has been adopted. In future the chemist is to be informed at the time of dispensing that the prescription is for test purposes, and the agent's written authorisation must be produced if required. The chemist may, if he wishes, divide the medicine into two equal parts in the presence of the agent, who will fix his official seal. The chemist may also affix his seal. Appliances will be sealed similarly. These alterations have been advocated by the Pharmaceutical Committee on several occasions.

### Miscellaneous

**HALF-DAY CLOSING SUSPENDED.**—The Carnarvonshire County Council has informed Llandudno Urban Council that the weekly half-day closing will be suspended from June 1 to September 30.

**ALIENS RESTRICTION (AMENDMENT) ACT.**—Permission has been granted to David Frischmann, importer and exporter of crude medicinal drugs, 24 Mark Lane, London, E.C., to use the name H. Frischmann.

**PRIVATE INSURANCE PANEL.**—It is reported that thirty Newcastle-on-Tyne medical men have started a panel for dependants of Health Insurance patients. The entrance fee is 1s., with a scale of charges graduated according to the number of persons entering. The scheme is to commence at the end of the present month.

**AN INTERESTING RELIC.**—The South Kensington Science Museum has been presented with James Watt's "Sun and Planet" engine, built in 1797 for John Maud, an Aldersgate Street chemist (or possibly a successor, John Maud having traded in Aldersgate Street as early as 1731). The engine will be set running from time to time.

**BURGLARIES.**—The pharmacy of Mr. R. H. Quin, chemist and druggist, Talbot Road, Blackpool, was broken into recently. Apart from a smashed door, little loss has been incurred, the intruder apparently having been disturbed.—A window at the premises of Squire & Co. (Birmingham), Ltd., chemists, East Street, Bromley, was broken on June 7 and some cameras were stolen.

**WINDOW-DRESSING AWARDS.**—At a shopping week window-dressing competition held at Burnham-on-Sea recently, the first prize in the class open to chemists was awarded to Hutchin & Son, and the second to Alderman Deacon, Mayor of Bridgwater.—In the recent Jersey shopping week a third prize was awarded to Luce's Eau-de-Cologne Co., Ltd., and Mr. P. Larbalestier was highly commended for a window display.



**PHOTOGRAPHIC CONVENTION.**—The annual meeting of the British Photographic Convention is being held at Warwick from June 6 to June 11. On the opening day a reception was held by the Mayor, and Mr. R. Chalmers was installed, as President. A series of excursions took place on June 7, and in the evening an illustrated lecture, "Warwick Castle and Town," was given by Mr. H. Baker. Other lectures in the programme include one on "The Early Days of the Kinematograph," by Mr. A. S. Newman, and one on Jerusalem, by Mr. A. Keighley.

**IN THE COURTS.**—At Skipton, recently, John Throup, Utley, described as a chemist's assistant, was fined 40s. for driving a motor-cycle negligently.—At Hastings, recently, Frederick Storer, hotel porter, was committed for trial on a charge of stealing soap and other goods, the property of Mr. H. G. Sletcher, chemist and druggist, London Road, St. Leonards.—At Bodmin Assizes, on June 4, Lionel J. Donnithorne, Redruth, described as a chemist's apprentice, was found "Not guilty" on a charge of manslaughter arising from a motor-cycle accident.

**POPULAR HEALTH REPORT.**—The annual report of the Medical Officer of Health (Dr. F. W. Alexander) for Poplar (London) for the year 1926 states that 65,317 gallons of electrolytic disinfectant fluid was manufactured during the year. The public analyst (Mr. A. E. Parkes, F.I.C.) reported that 812 samples were examined under the Sale of Food and Drugs Acts, and 73 were found unsatisfactory. Of these, there were three samples of seidlitz powders deficient in tartaric acid to the extent of 12.5, 56 and 60 per cent. respectively, two samples of lime water deficient in lime (5 and 65 per cent. respectively), vinegar deficient in acid, and liniment of turpentine and acetic acid deficient in acetic acid and camphor.

## Scottish News

### Brevities

The employees and friends of Mr. Charles Whyte, chemist and druggist, Kirkcaldy, had an outing to Perth on June 1.

The chemists of Kirkcaldy and Dysart intimate that from June until September the hours of business on Wednesdays will be from 8.30 a.m. to 1 p.m., the evening hour being discontinued.

An improvement has been made at the Cross, Kilmarnock, by the reconstructing of an old building and the modernising of the frontages of shops in the vicinity. One of these is occupied by Rankin & Borland, established in 1798, a short history of which firm was given in the *C. & D.*, I, 1906, p. 135.

### Edinburgh

Mr. J. P. Dunn, representing Vinolia Co., Ltd., has removed to 12 Darnaway Street.

Mr. George Hedderwick, chemist and druggist, has opened a business at 54 Blackfriars Street.

The Edinburgh Pharmacy Club foursome competition for the T. & H. Smith challenge trophy resulted in favour of J. P. Gibb and J. S. Wilson, who defeated Dr. Coull and A. McDougall.

### Glasgow

Mr. Samuel S. Goldberg, druggists' sundriesman, 57 Hope Street, Glasgow, has removed to 153 Oxford Street (corner of Bridge Street).

Mr. James M. Macaulay, Ph.D., B.Sc., has been appointed to the chair of physics in the Anderson College of Medicine, Glasgow.

It is proposed to extend the present three-years' course in pharmacy at the Royal Technical College to four years, the fourth year to be devoted to chemistry, and students will take the "major" and "degree" examinations in the third year and then proceed to the A.I.C.

A young woman entered a chemist's shop in Langlands Road, Govan, on June 4, and after explaining that she had taken lysol collapsed in the arms of the assistant. First aid was rendered by the chemist, and the woman was removed to the Western Infirmary.

## Irish News

### Brevities

Mr. William Stock, Ph.C., has opened a medical hall in William Street, Listowel, co. Kerry.

Among the candidates for the Free State Parliament at the forthcoming election is Mr. J. J. Cole, Ph.C., who has been nominated as an independent candidate. Mr. Cole is a member of the expiring parliament.

Mr. Jack Sewell, Ph.C., has been appointed compounder of medicines to the Killarney District Hospital County Home and the Killarney No. 1 and No. 2 Dispensary Districts. Mr. Sewell is a son of the late Mr. J. J. Sewell, M.P.S.I., and nephew of the late Mr. E. J. Sewell, M.P.S.I., Killarney.

The Irish Chemists' Golfing Society will hold a stroke competition at Greystones Golf Club on June 16 at 3 p.m. Players will be divided into two classes and prizes will be awarded. Competitors will afterwards be entertained at the club house by Mr. F. J. Fitzpatrick (President of the Pharmaceutical Society). Entrance fee is 5s.

Mrs. E. McNaghten, proprietress of the Medical Hall, Belturbet, co. Cavan, and her daughter, Maevie, were charged on June 5 at Cavan Circuit Court, before Judge Devitt and a jury, with having maliciously set fire to their dwelling-house and a chemist's shop on January 4. There was also a charge of maliciously setting fire to a quantity of household furniture. There was a plea of "Not guilty" (*C. & D.*, February 19, p. 215). The jury was unable to agree, and the accused were allowed out on continuing bail to the next Circuit Court.

The official import returns issued by the Irish Free State Ministry of Industry and Commerce show the following imports of drugs, perfumery, etc., imported into the Free State during 1926, compared with 1925:—

|                                             | 1926    |          | 1925    |          |
|---------------------------------------------|---------|----------|---------|----------|
|                                             | Qty.    | £        | Qty.    | £        |
| Boric acid .. cwt.                          | 852     | 2,596    | 1,202   | 3,865    |
| Cream of tartar .. cwt.                     | 5,343   | 19,972   | 5,603   | 21,183   |
| Perfumery containing spirit .. lb.          | 69,351  | 24,265   | 64,593  | 22,609   |
| Other perfumery .. lb.                      | 499,108 | 77,412   | 389,615 | 66,174   |
| Liq. perfumed spirit gal.                   | —       | —        | 206     | 2,920    |
| Medicines and preparations, dutiable ..     | —       | 112,082  | —       | 97,400   |
| Medicines and preparations, non-dutiable .. | —       | 199,381  | —       | 180,937  |
| Druggists' wares ..                         | —       | 40,204   | —       | 41,755   |
|                                             |         | £475,912 |         | £436,843 |

Of the total imports £422,536, or nearly 90 per cent., was shipped from British ports.

### Belfast

Mr. W. Magill, 39 Victoria Street, Belfast, who was representative in Northern Ireland for F. Newbery & Sons, Ltd., London, has resigned owing to ill-health. He is succeeded by Mr. C. S. Govan, 3 North Parade, Belfast.

On June 3, Mr. J. C. Culbert, Ph.C., Connswater, Belfast (member of Council, Pharmaceutical Society of Northern Ireland), was elected a member of the Board of Guardians, Belfast, replacing Mr. J. Beattie, a well-known Socialist. Mr. Culbert, who was standing for the first time, had a majority of over 1,000.

**EARLY CLOSING.**—The Transvaal Provincial Council intend enforcing retail shops to close on Saturday afternoons instead of Wednesday. Johannesburg retailers are against this proposed change, as much town business will be lost if this should take place.

**BATTLE PRICES OF ENGLAND'S CHEMICAL INDUSTRY.**—Under this title the semi-official "Industrie- und Handels-Zeitung" reports that reductions in the prices of a number of products of the British chemical industry are contemplated, to take effect on September 1. The prices for the most important chemicals will be reduced to the level of the German quotations, and for some even below the latter. It is assumed, the journal adds, that these reductions will prove of extraordinary importance to British competition throughout the whole world, besides appreciably stimulating all other British industries.



## Colonial and Foreign News

**ENO'S IN GERMANY.**—Eno's Fruit Salt is now being manufactured in Germany by Eno's Fruit Salt G.m.b.H., 11-12 Alte Jakobstrasse, Berlin S.W.68.

**ARTICLES BY LETTER POST FOR BELGIUM.**—Dutiable articles may be sent to Belgium by letter post, provided a green label is affixed to the package giving the name of the article, its value, and weight. Or, a green label with the words, "Douane, peut-être ouvert d'office," may be affixed; however, in this case a Customs declaration must be attached to the packet. If the amount of duty to be collected does not exceed 50 centimes, the goods contained in letters complying with these regulations will be admitted duty-free, but this exemption will not be granted when several letters are dispatched simultaneously to the same address.

**CZECHOSLOVAK PHARMACOPEIA.**—The chemical subcommittee of the Czechoslovak pharmacopœia commission has reached agreement on the following points:—(1) Solubilities are to be expressed in terms of weight, and not of volume. (2) As the standard temperature for specific gravities 20° C. has been adopted, and for water 4° C.; measuring vessels are to be graduated at 20° C. (3) Volumetric solution of potassium hydroxide is to be used in acidimetry; as indicators, phenolphthalein, methyl orange and methyl red. (4) Structural formulas of organic compounds are to be included. The pharmacological and biological subcommittee proposed the inclusion in Czechoslovakia's first national pharmacopœia of the following serums: Diphtheria antitoxin, tetanus antitoxin, anthrax, meningococcus, scarlet fever and fowl cholera serum. Two of the members of this subcommittee were entrusted with the task of drawing up a report in which the serums to be stocked in all pharmacies are specified.

**DUTCH PHARMACY STATISTICS.**—On December 31, 1926, there were 623 pharmacies in Holland, in which 288 male and 1,578 women pharmacists were employed. In addition, 1,142 medical practitioners were empowered to supply medicaments to their patients, and these employed a total of 10 males and 170 women as dispensers. The pharmaceutical *personnel* of the Dutch Army consisted, on January 1, 1927, of pharmacists holding the following ranks:—One lieutenant-colonel (Chief of the Army Pharmaceutical Service); two majors; six army pharmacists, first class; 22 army pharmacy assistants; five army pharmacists, first class, and four second class in the reserve. Attached to the naval service were one civilian pharmacist and three civilian pharmacy assistants. In 1926, twelve candidates, seven women and five men, passed the final qualifying examination, while of 790 candidates who presented themselves for the pharmacy assistants' examination, 449 passed, i.e., 88 men and 361 women.

**MEDICATED WINES FOR NEW ZEALAND.**—The following regulations are in force in New Zealand regarding the labelling of medicated wines:—Medicated wine is wine to which any drug included in the British Pharmacopœia has been added, and the drug shall be present in such proportions that each fluid ounce of wine shall contain not less than the minimum dose of such drug as stated in the said Pharmacopœia labelling:—There shall be written on the label attached to every package containing medicated wine (a) the words "medicated wine" in bold-faced sans-serif capital letters of not less than 18 points face measurement; (b) the name of the drug in English, and the proportions of the drug with which such wine is medicated; (c) the quantity of wine to be taken for a dose; (d) the percentage of proof spirit present in the wine and (e) the words "this preparation is to be used as a medicine only" in bold-faced sans-serif capital letters of not less than 12 points face measurement.

**OPIUM PRODUCTION IN PERSIA.**—At the forty-fourth session of the Council of the League of Nations, statements on the opium policy of the Persian Government were made by the Persian representative, Mustapha Gholi Khan Kemal Hedajat, and his technical adviser, Colonel McCormack (U.S.A.). The Persian Government was prepared in principle to accept the recommendations of the Commission of Enquiry on Opium Production in Persia,

with the reservation that, after the plan had been in effect for three years, the position would be reconsidered in the light of the economic and financial situation of Persia and the efforts made by other producing and manufacturing countries to curtail their output. As regards the replacement of the opium poppy by other crops, five or six years would elapse before production was fairly under way, and the cost of the substitution could barely be estimated with any accuracy, important irrigation and transport works being necessary. The Government proposed to exempt from taxation land diverted from opium production, and to grant loans to cultivators reducing the area reserved for poppy growing. It also contemplated introducing the import certificate system, subject to certain conditions.

**SPECIALITIES IN TURKEY.**—Over a year ago the Minister of Health issued an order (*C. & D.*, 1926, I, p. 516) prohibiting the importation into Turkey of more than 350 foreign pharmaceutical specialities, including several well-known and extensively used preparations, mostly of French origin. This step was taken on the grounds that these prohibited preparations were not indispensable, and that their importation prevented the sale of similar preparations put up by Turkish pharmacists. Investigations recently carried out by the health authorities in Constantinople have revealed the presence of large stocks of many of these products at several pharmacies and drug houses. The authorities assert that these goods are now being smuggled into Turkey, and refuse to accept the explanation tendered, viz., that very large stocks were available when the prohibition was issued. As a result of the evidence collected, all pharmacies and drug houses have been required to submit a list of prohibited foreign specialities in stock, and the health inspectors have been busily engaged in affixing a special stamp to each package, since packages not bearing this stamp will in future be immediately confiscated. At the same time, the Government has decided to grant special facilities for the importation of raw materials, etc., required for the manufacture of pharmaceutical specialities by Turkish pharmacists, and a plan is on foot to establish a factory not only for the manufacture of proprietary preparations, but also of galenicals and certain chemicals on a co-operative basis.

## Coming Events

### Sunday, June 12

**National Association of Women Pharmacists.**—Ramble to Woldingham and Caterham. Train, 10.20 a.m. Victoria Station. Meet at Woldingham at 11 a.m.

### Tuesday, June 14

**London (South-West) Chemists' Association,** Stevens' Bijou Hall, Bromell's Road, Clapham, at 8.30 p.m. Annual meeting.

### Wednesday, June 15

**East Anglian Federation of Pharmacists,** Felix Hotel, Felixstowe, at 4 p.m., quarterly meeting; at 6 p.m., dinner. Tickets (7s. 6d. each) from Mr. C. E. Bell, 42 Hamilton Road, Felixstowe. Ladies invited.

**Pharmaceutical Society of Great Britain (North British Branch),** 36 York Place, Edinburgh, at 11 a.m. Annual meeting.

**Mackenzie Testimonial.**—Complimentary supper and presentation to Mr. W. G. Mackenzie, Ph.C., Royal Dispensary School of Pharmacy, Edinburgh, Oak Café, Crawford's Rooms, 70 Princes Street, at 7 p.m. Tickets (4s. 6d. each) from members of committee, or Mr. J. J. Blackie, 104 Holyrood Road.

### Thursday, June 16

**Chemical Society,** Burlington House, London, W.1, at 8 p.m. Papers on "Syntheses of Cyclic Compounds," Part I, by Mr. I. Vogel; "New Method of (Absolute) Potentiometric Titration," by Mr. B. Cavanagh.

**British Chemical and Dyestuffs Traders' Association, Ltd.,** Abercorn Rooms, Great Eastern Hotel, London, E.C.2, at 2.30 p.m. Annual meeting.

**Birkenhead and Wirral Pharmacists' Association.**—The annual summer excursion will be held to Rhyl. Tickets (10s. each) from Mr. H. Stockdale, 12 Mallaby Street, Birkenhead.

### Friday, June 17

**Edinburgh Chemists', Assistants' and Apprentices' Association,** Nether Liberton, at 7.30 p.m. Botanical excursion to Blackford Hill. Conductor: Mr. J. I. Aitken.



## Legal Reports

**Irish Pharmacy Acts Prosecution.**—In the Dublin District Court, on June 1, two summonses at the suit of the Pharmaceutical Society of Ireland against J. Brady & Co., Ltd., 76 Upper Leeson Street, were heard. One summons charged the defendants that, while lawfully keeping open shop for dispensing and compounding medical prescriptions, they did not employ as an assistant or manager a duly qualified person. In the second summons they were charged that, while lawfully keeping open shop for selling or retailing poisons, they did not employ as an assistant or manager a duly registered person. Mr. Brown, who appeared for the defence, pleaded "Guilty." Mr. Meeke, prosecuting, said that the virtual proprietor of the business was Miss Julia Brady. She failed to pass the examination of the Pharmaceutical Society, and subsequently floated a company. Mr. Brown addressed the district justice in mitigation of the offence. The Justice: Of course, it is very essential that the law should be strictly enforced in these cases, because they constitute such an appalling danger to the public. Really, there is no necessity to dwell on it. I will say £1 fine and £5 costs in each case.

**Theft of Spirit.**—At Tower Bridge Police Court, London, on June 8, George Russell (35) and William Jones (27) were charged with stealing six gallons of spirit, value £42; Russell, Jones and Henry Farren (25), motor driver, were also charged with stealing six gallons of the spirit on a previous date. Mr. Hellyer, solicitor, defending, said that all the men would plead "Guilty." Mr. J. A. Davis, solicitor, prosecuting, stated that Russell had been with his employers, Stevenson & Howell, Ltd., manufacturing chemists, Southwark Street, S.E., for fifteen years, Davis for eleven years, and Farren for nine years. The three managed to get a key to the spirit room made. Russell periodically took a turn as week-end watchman, and during those times he and Jones stole spirit and put it in Farren's car. He drove away with it and met a receiver, whom the police had not been able to trace. Farren, who said he only got a few shillings each time, admitted having made £25 or more, so it could be guessed that a very large quantity had been stolen. It was estimated that during the past eighteen months spirit to the value of £2,000 had been lost by Messrs. Stevenson & Howell. Russell and Jones were each sentenced to six months' imprisonment (concurrent) on each charge, and Farren to two months' imprisonment, all in the second division.

## Bankruptcy Reports

**Re Alfred Martin Hibberd,** "Holmswood," Chapel Lane, Longton, late 1 Market Street, Preston, chemist (*C. & D.*, May 7, p. 545).—The following are among the creditors:—Anglo-American Oil Co., Ltd., £15; Cephos, Ltd., £17; Fassett & Johnson, £18; T. Guest & Co., Ltd., £24; D. & W. Gibbs, Ltd., £13; Harkness, Beaumont & Co., Ltd., £29; S. Maw, Son & Sons, Ltd., £27; Parke, Davis & Co., £14; A. & F. Pears, Ltd., £12; R. Sumner & Co., Ltd., £27; Palmolive Co., Ltd., £13; A. Wander, Ltd., £20; James Woolley, Sons & Co., Ltd., £19.

**Re John Coutts,** 383 Cumberland Street South, Glasgow, chemist and druggist.—At the examination in bankruptcy, held in Glasgow, recently, a statement of affairs showed liabilities £4,206 and assets £126. The bankrupt stated that he commenced business in December 1898, with a loan of £150 from his father-in-law and £100 worth of stock; the business was at first successful, but for several years it had been going down, and he had borrowed from friends and money-lenders. The sheriff pointed out that although the bankrupt had been in business nearly thirty years no proper books had been kept. The examination was closed.

**CANADIAN CHEMICAL INDUSTRY.**—With a total production worth £24,094,000—an increase of £1,500,000 over the preceding year—the Canadian chemical industry in 1926 made steady progress. There are now 533 plants at work.

## New Companies and Company News

**P.C. means Private Company and R.O. Registered Office.**

**J. E. LOCKYER, LTD. (P.C.).**—Capital £2,000. Objects: To acquire the business of a wholesale and retail chemist now carried on by J. E. Lockyer at 244 and 250, Evelyn Street, Deptford, S.E.8. Director: J. E. Lockyer. R.O.: 244 Evelyn Street, Deptford, London, S.E.8.

**NYAL COMPANY, LTD. (P.C.).**—Capital £500. Objects: To carry on the business of manufacturers and exporters of and dealers in chemicals and chemical and medicinal articles and preparations (whether proprietary or otherwise), etc. Acting secretary: A. R. Osborne, 35 Dame Lane, Dublin.

**CHIROPODY EQUIPMENT Co., LTD. (P.C.).**—Capital £100. Objects: To carry on the business of manufacturers of and dealers in articles, preparations and equipment used by chiropodists, manufacturers of and dealers in oils, perfumes and other toilet requisites, chemists, druggists, etc. Solicitors: W. W. Box & Co., 28 Great James Street, Bedford Row, London, W.C.1.

**ADVERTISING FLEXISIGNS, LTD. (P.C.).**—Capital £2,000. Objects: To carry on the business of manufacturers of advertising flexisigns and other forms of advertising, workers in sheet and other metals, advertising consultants and agents, makers of a preservative (the basic principle of Flexisign) for protecting from acid, steam, water, gas or atmospheric influences all types of metal work, stone, wood, paint work, printed and lithographic matter, etc. R.O.: 32 Frederick Street, Birmingham.

**A. J. WHITE, LTD.**—The accounts for the year ended March 31, 1927, show a net profit of £35,809. To this is added £60,548 from last year's accounts, making £96,357, out of which the directors recommend a final dividend of 6 per cent. (making 10 per cent. for the year), leaving a balance of £66,357 6s. 8d. to be carried forward.

**THE "SANITAS" Co., LTD.**—The report for the year ended March 31, 1927, states that on June 30, 1926, Mr. C. T. Kingzett tendered his resignation of the chairmanship and his appointment as a director. Mr. N. F. Kingzett was appointed to the chair. During year the general health conditions of the country remained normal until the outbreak of influenza in the first three months of the present year, but the business of the company and its sales and profit ratios have been well maintained, and that in spite of the industrial outbreaks and the general upheaval of trade conditions. The company's investments continue to yield a satisfactory return in the aggregate. The balance available, including £1,123 brought forward, amounts to £61,486.

**THOMAS & Co. (BURSLEM), LTD.**—A statutory meeting of creditors was held recently at Stoke-on-Trent. A statement of affairs showed ranking liabilities £2,409 16s., of which £1,447 14s. 11d. was due to trade creditors. The assets were estimated to realise £1,061 1s. 7d. (net, £529 16s. 1d.). The issued capital of the company was £997, and as regarded the shareholders there was a deficiency of £2,376 19s. 11d. The chairman reported that the company was registered in February 1924, with a nominal capital of £1,000, and was formed to take over a business which had previously been carried on by Mr. Thomas. During the thirteen months to March 31, 1925, the turnover was £24,786, with a net loss of £864. During the following year the turnover fell to approximately £20,000, and the net loss increased to £945. No accounts had been prepared since March of last year. In addition to the shop at Reid Street, Burslem, there was a branch at Wolstanton. At one time the company had a third establishment at Queen Street, Burslem, but it was disposed of some little time ago. The earlier losses sustained by the company were attributed to over-buying and to competition.—At an adjourned meeting an offer of composition of 5s. in the £ in cash, to be distributed within two weeks, was accepted, and the voluntary liquidation of the company was confirmed.



## General Medical Council

(Continued from the *C. & D.*, May 28, p. 657)

### RESTORATIONS

The registrar reported that the names of the under-mentioned persons had been restored to the Medical Register:—

|                            |                         |
|----------------------------|-------------------------|
| Barron, Willie N.          | O'Kelly, Robert (I)     |
| Bayfield, Thomas (S.)      | Rees, Rice              |
| Bullmore, Charles C.       | Russell, William J. (I) |
| Donaldson-Sim, Ernest A.   | Saundry, James B.       |
| Elliott, Thomas W. E. (I). | Simmonds, Ernest G.     |
| Erlington, Nicolas         | Smith, George (I)       |
| Evans, Edward              | Stallard, Philip L.     |
| Flood, Patrick J. (I)      | Stephen, Leslie D. (S.) |
| Grimoldby, James           | Taylor, William B. B.   |
| Hereford, Charles F. A.    | Ward, Francis           |
| McConnel, Henry W.         | Watson, John            |
| Moore, Harold E.           |                         |

### DENTAL BOARD REPORT

The Dental Board of the United Kingdom sent reports of two disciplinary cases, with a recommendation that the names of the respondents, Messrs. Joseph Halliday Magee and Samuel Theodore Hilton, be erased from the Dentists Register (*C. & D.*, May 28, p. 657). Mr. Magee attended the sitting, and addressed the Council. After deliberation, the President stated that the Council was of opinion that further inquiry into the case was necessary, and had remitted the matter to the Dental Board. Mr. Hilton did not attend in answer to his notice, and the President announced that his name would be erased from the Register. It was reported that the Registrar of the Dental Board had been directed to restore to the Register the name of Samuel Robertson, Crosbie.

### PHARMACOPOEIA COMMITTEE

The following were elected members of the Pharmacopœia Committee:—

The President (chairman), Dr. Adams, Sir Robert Bolam, Dr. Dale, Dr. Kidd, Mr. Leathes, Dr. Mackintosh, Dr. Magennis, Sir John Moore, Sir H. Rolleston, Sir N. Walker, Sir Holburt Waring, Dr. Wild.

The report of the Committee stated that the number of copies of the British Pharmacopœia, 1914, sold by the publishers between November 20, 1926, and May 24, 1927, was 2,256; the total number sold since the date of publication was 53,647. A further supply having become necessary since the last session of the Council, the President ordered the printing of 5,000 copies. The Committee desire to place on record their acknowledgment of the work of Sir Nestor Tirard during the last thirty-two years as secretary, honorary secretary, reporter and medical editor of the Pharmacopœia. The Committee on the Pharmacopœia (referred to in the previous report) has been engaged in taking evidence, and its report may be expected before the next session of the Council. The report was unanimously adopted.

### DISCIPLINARY CASES

Mr. Samuel Graham Connor, M.B., C.M., 119 Oxford Street, London, W.1, had been before the Council in June 1926 on charges of (1) having afforded six drug addicts facilities for obtaining "dangerous" drugs; (2) having supplied two of these persons with such drugs; and (3) having been convicted in a police court of offences against Regulations 5 and 9 of the Dangerous Drugs Act, 1920 (*C. & D.*, I, 1926, pp. 780, 822). Mr. Connor, who had been placed on probation by the Council, now appeared in answer to his notice, and the registrar read eight letters testifying to his good character. The President, after the Council had deliberated, informed the respondent that the Council did not see fit to direct the registrar to erase his name from the Medical Register.

Mr. Austin Heron, a member of the West African Medical Staff, with Irish qualifications, who was originally before the Council in May 1925, following a conviction for indecent exposure, now appeared in answer to his notice, put in six letters testifying to his good conduct, and gave the Council certain assurances. He was informed that his name would remain on the Register.

On the resumption of the session on May 25, the Council dealt first with the case of Mr. Frederick Joseph

William Porter, M.R.C.S., L.R.C.P., of the Army Medical Service, who had been summoned to appear on six charges of advertising in Indian newspapers. The respondent attended, accompanied by his solicitor. The Council found the charges proved, but postponed judgment to May 1928, with the customary stipulation as to conduct.

An inquiry as to the correctness of an entry in the Register was the next item of business. The solicitor for the respondent, who was Dr. John Richard Brinkley, Milford, Kansas, U.S.A., and had been given a place in the foreign list, addressed the Council on his behalf; but eventually the Council directed the erasure of the name and the return of the registration fee. Dr. Brinkley having tendered certain information in good faith.

Mr. John Morrison Lever, M.B., Ch.B., 6, Savile Road, Chapelton, Leeds, was charged with having knowingly enabled two uncertified women to act as midwives. The complainants were the London County Council. The case, which occupied portions of two sittings, was dismissed.

Mr. Jogesh Chandra Bose, M.R.C.S., L.R.C.P., 276 Cherrywood Road, Birmingham, was summoned, at the instance of the Birmingham Education Committee, for issuing an "untrue, misleading or improper" certificate stating that a child was unable to attend school. At the conclusion of the evidence the President announced that the Council had found the facts proved to their satisfaction, but judgment was postponed until November.

Three medical practitioners, Mr. Lawrence Crombie, M.B., Ch.B., Dunollie, Dalmuir, Glasgow, Mr. Eliazzer Gelfer, L.R.C.P., L.R.C.S., L.R.F.P.S., 45 Abbotsford Place, Glasgow, and Mr. William Mason Hamilton, M.B., Ch.B., Law Junction, Lanarkshire, were summoned on identical charges of keeping a medical hall, open shop, or other place in which scheduled poisons are sold to the public, and employing assistants who were not legally qualified to sell such poisons. The complainants were the Pharmaceutical Society of Great Britain. Drs. Crombie and Hamilton attended, accompanied by Mr. O. Hempson, solicitor. Dr. Gelfer sent a written defence to the effect that he had never heard of any qualification being needed for the sale of lysol, the poison referred to. Lysol was also sold in Dr. Hamilton's surgery (*C. & D.*, February 12, p. 187), where, he said, the whole stock was worth only two and a half guineas. Dr. Crombie's assistant had sold Jeyes' Fluid. The sales were admitted by the respondents, and the President, in view of their regrets and assurances, announced that judgment would be postponed, with the usual proviso, for six months.

Mr. Duncan Miller, M.B., Ch.B., Glebe House, Washington, Durham, was charged with having been convicted of being drunk while in charge of a motor-car and of being found drunk on the highway. The respondent said that he had since become a total abstainer. Judgment was postponed until May, 1928.

## Pharmaceutical Society of Great Britain Branch Meetings

**London (W.).**—The annual meeting of the West Metropolitan Branch was held on May 26 at 192 Oxford Street, W.1, the chairman (Mr. C. G. Bonner) presiding. The joint secretaries' report disclosed a membership of 571, together with 51 student-associates, a slight increase on the previous year's figures. The social secretary (Mr. W. B. Falding) reported that the recent social function held by the branch had attracted the best attendance on record. The treasurer (Mr. W. E. D. Shirliff) showed that the balance in hand was £53, and congratulated the branch on the good work done. The auditors (Messrs. W. Wilkinson and R. E. Lownsbrough) were re-elected; and Messrs. Broad and Cane were elected to the committee in place of Messrs. Ellerington and Roe, resigned. A vote of thanks to the officers concluded the proceedings.

**Manchester.**—At a recent meeting of the Manchester, Salford and District Branch the following officers were elected:—*Chairman*, Mr. W. Kirkby, M.Sc.; *Vice-Chairman*, Mr. E. H. Simmons; *Treasurer*, Mr. A. J. Pidd; *Secretary*, Mr. T. Miller.



## Retail Pharmacists' Union

### Executive Meeting

A MEETING of the Executive of the Retail Pharmacists' Union was held at 4/5 Queen Square, London, W.C.1, on May 23, Mr. H. J. Martin in the chair. There were present: Messrs. Clement, Clubb, Forster, French, Gilleghan, Hague, Hardy, Jackson, Keall, Marshall, Melhuish, Phillips, Scholes, Smalley, Tranmer and Young.

The secretary reported that he had interviewed the Board of Trade with a view of obtaining an exemption for retail chemists which would free them from the requirements of the Merchandise Marks Act, Section 1. The Board of Trade had agreed that there was a good case for the exemption, and had promised to deal with the matter before the Act came into force on June 15. The actual terms on which the exemption would be given were being discussed with the Board of Trade.

The chairman reported that evidence had been given by himself and the secretary before the Shops Act (Early Closing) Committee, urging the continuance of the present early closing.

The secretary reported that the Ministry of Health had been asked to amend the formula for tablet nasopharyngeal co. in the drug tariff by substituting benzin. hydrochlor. for cocain. hydrochlor., thus removing the tablets from the Dangerous Drugs Act Regulations. A reply had been received from the Ministry agreeing to the suggestion, and stating that the necessary arrangements were being made to bring the change into operation.

The special subcommittee submitted a memorandum of additional evidence which the Executive was recommended to submit to the Poisons Committee. The supplementary evidence amplified the previous evidence submitted regarding the Central Authority for the purposes of the Pharmacy Acts, and emphasised the need of one Central Authority only, and that the Pharmaceutical Society should be that body.

The National Health Insurance Committee reported upon the final offer of the Ministry of Health regarding the new terms, and stated that the Ministry had agreed to give a right of terminating the contract at the end of October 1928 and also in the event of a period of two consecutive years showing an average deficiency of 15 per cent. on the total payments.

The Executive of the Chemists' Defence Association, Ltd., which met afterwards, resolved that the attention of tablet manufacturers be drawn to the fatal accidents which occur to children through taking sugar-coated tablets containing poison, and to suggest for their consideration the desirability of abandoning sugar as a coating for such tablets.

### Delegates' Conference

The fifth annual conference of the delegates from branches of the Retail Pharmacists' Union was held at the Holborn Restaurant, Kingsway, London, on May 25. The chairman, Mr. H. J. Martin, presided, and was supported by the members of the Executive.

The following are some of the subjects discussed: With a view of limiting the sale of certain goods to chemists, a resolution was adopted that the makers of certain proprietary articles be asked to devise some method of coding or marking their preparations which could not be obliterated without defacing the package in such a manner as to make it unsaleable.

A number of resolutions dealing with the abuse of welfare clinics were considered, and the secretary reported that the R.P.U. had previously interviewed the Minister of Health in regard to the matter, and the Ministry had investigated several cases of abuse of the clinics which had been brought to their notice.

A resolution was adopted in regard to the necessity for a firm stand being taken to preserve the title of "chemist" for registered chemists and druggists, as it was considered that the title pharmacist is not understood by the general public.

The conference unanimously supported a resolution asking for the removal of the anomaly existing under the Dangerous Drugs Act Regulations in regard to exempted preparations which, when mixed with any other sub-

stances, brings them within the Regulations. A suggestion that a dispensing fee of 1s. be charged on all private prescriptions which came within the Dangerous Drugs Act was also adopted.

The conference considered that the supply of articles protected under the scheme of the Proprietary Articles Trade Association on wholesale terms to limited companies is unfair to the private trader, and it was decided that the attention of the Association should be drawn to the matter. A suggestion that the manufacturers of articles which are on the P.A.T.A. list should be asked to mark the packages with the minimum retail price was also adopted. It was decided to suggest to the P.A.T.A. that all firms contravening the principles of the P.A.T.A. should be penalised to a greater extent than at present.

The attention of the conference was directed to the attacks which are made upon pharmacists from time to time in the Press, and it was decided that the R.P.U. should be informed by members of any article or letter published by the Press which was likely to be detrimental to the pharmacist, and that the R.P.U. should reply on behalf of its members.

The matter of unscrupulous advertising of proprietary medicines was discussed, and it was considered that pharmacists should not give their support to advertisements for proprietary articles which are calculated to mislead the public by fictitious statements regarding the properties of those articles.

A suggestion that the custom of giving 10 per cent. discount to nurses should be abolished was adopted, as it was considered that the practice is subject to much abuse.

The proceedings concluded with a vote of thanks to the chairman.

### Annual Meeting

The sixth annual meeting of the Retail Pharmacists' Union was held at the Holborn Restaurant on May 25, Mr. H. J. Martin in the chair. Over 100 members were present. The chairman surveyed the work of the Union during the past year, and stated that he felt sure the meeting would agree that the report indicated a healthy state of affairs. Mr. Pegg (Mansfield) moved, and Mr. Enock (Middlesbrough) seconded, the adoption of the report, which was carried unanimously. Mr. Dunn (Wolverhampton) moved, and Mr. Nundy (Leamington) seconded, the adoption of the statement of accounts, which was also carried unanimously. The proceedings terminated with a vote of thanks to the chairman.

## Lin. Aconiti Co. B.P.C.

Formula No. 19 of the North of England Medical Formulary reads:—

### *Linimentum Sedativum*

Lin. aconiti co., B.P.C. ... 3ij.  
(Lin. A. B. C.)

Mr. W. Forster, Ph.C., Seaham Harbour, investigated (*C. & D.*, December 18, 1926, p. 920) a separation that occurs in this liniment. The separation varies in amount, as lin. belladonnæ varies in extractive (mucilage). The separation is avoided by the addition of water q.s. In order to have the lin. bellad. and lin. aconiti in the lin. sed. in nearly as possible the same proportion as in the B.P.C. preparation, these being the most important ingredients, the chloroform which causes the separation has been reduced and water added to produce an inseparable Lin. A. B. C. A notice has accordingly been sent out by the Clerk to the Durham Insurance Committee that on and after June 1 the following is to be the formula employed:—

### *Lin. Sedativum*

|                    |     |     |     |      |
|--------------------|-----|-----|-----|------|
| Lin. aconiti ...   | ... | ... | ... | 3vj. |
| Lin. belladon. ... | ... | ... | ... | 3vj. |
| Chlorof. ...       | ... | ... | ... | 3ij. |
| Aquæ ...           | ... | ... | ... | 3ij. |

The N.E.M.F. liniment will have the advantage of being constant in the proportion of alkaloids, whereas the B.P.C. Lin. varies according to the amount of separation—the greater the separation the stronger the super-fluid.



## Cod-Liver Oil and Irradiation

THE Public Health campaign in favour of treatment of ailing and badly nourished children with ultra-violet light has become prominent for some time past. In addition, the discovery that fats can be made antirachitic by irradiation has encouraged investigators to invent methods of activating foodstuffs by artificial sunlight. The economics and utility of ultra-violet treatment, i.e., irradiation of the patient or his diet, is still *sub judice*, but some recent investigations tend to show that radiant treatment cannot compare in efficacy or cost with cod-liver oil medication, so far as fat-soluble vitamins are concerned. The experiments of H. Goldblatt and A. R. Moritz ("Journal of Biochemistry," Vol. LXXI, No. 1, p. 127) are extremely interesting, as they afford direct comparison between the growth-promoting power of irradiated fat, direct irradiation, and of cod-liver oil as tested on rats. Irradiated fat in the diet and direct radiation were found to possess to about the same degree the power to promote gain in weight with rats on a diet deficient in vitamins A and D. In both cases there was a moderate gain in weight, but this was limited to a period of two to four weeks. It was concluded that irradiated fat can be used as a substitute for direct radiation, this being an advantage, since the latter necessitates hooding of the eyes in order to prevent conjunctivitis, opacity of the cornea, and the development of other obscure eye troubles. However, neither source of radiant energy can be used in growth promotion experiments as a substitute for cod-liver oil unless fat-soluble vitamin A is also added. The conclusion finally attained is that while radiant energy administered directly (by irradiation) or indirectly (as irradiated fat) may enhance growth, it will not prolong the life of animals on diets deficient in vitamins A and D, and that it does not prevent the development of xerophthalmia. The fact that cod-liver oil possesses the property of promoting growth to a greater degree than either direct radiation or irradiated oil is without doubt due to its richness in vitamins A and D. The results of E. B. Hart, H. Steenbock, S. W. Kletzein, and H. Scott (*loc. cit.*, No. 2, p. 271) are also of importance in connection with the administration of cod-liver oil. These investigators find that the non-saponifiable fraction of cod-liver oil is ineffective in improving calcium assimilation of lactating goats when administered in capsules as a solid pasty mass, though it becomes effective again when redissolved in corn (maize) oil, though the latter is in itself without effect on calcium retention. Cod-liver oil improved the calcium metabolism provided the animal was first gradually accustomed to direct feeding with the oil. On the other hand, the taking of raw cod-liver oil in large doses may lead to disturbed appetite and misleading results, owing to decreased food intake. It is noted that the administration of cod-liver oil to laying hens is very effective in increasing egg production. It is also suggested that recourse must be made to materials rich in vitamin D for dairy cows, if irradiation cannot directly furnish the antirachitic factor to milk-producing animals. B. Kramer, S. D. Kramer, D. H. Shelling and M. J. Shear (*loc. cit.*, No. 3, p. 698) have investigated the failure to cure rickets by subcutaneous injection of cod-liver oil or its concentrate, dissolved in olive oil. They find that a cholesterol-free concentrate (as potent as the original cod-liver oil) was inactive when injected in palmitin solution, but cured experimental rickets in rats when dissolved in ether. The failure, attributed to the subcutaneous reaction, would thus appear to depend more upon the solvent than upon the inactivity of the cod-liver oil concentrate.

**CASTILE SOAP.**—A Spanish Royal Order, dated May 18, 1927, defines Castile soap as the product of saponification of olive oil of good quality with caustic soda. It should be almost white in colour, soft to the touch, possessing a pleasant odour and a slightly alkaline taste; entirely soluble in water and in alcohol. It shall not contain more than 20 per cent. of water, and the limit of free alkali is 0.3 per cent. The iodine value of the fatty acids varies between 69 to 82, and the oleorefractive index of the latter lies between 41 and 43, at 40° C.

## Census of Production

BREWING and malting trades, aerated waters, cider, vinegar, British wines and cognate trades and the wholesale bottling trade are surveyed in the thirteenth preliminary report on the Third Census of Production published in the "Board of Trade Journal" (May 26). The output during the years 1924 and 1907 of table waters and other goods by firms in Great Britain is as follows:—

| Products                                                            | 1907                    |               | 1924               |               |
|---------------------------------------------------------------------|-------------------------|---------------|--------------------|---------------|
|                                                                     | Quantity                | Selling value | Quantity           | Selling value |
| Table waters ..                                                     | doz. bottles 94,054,000 | £ 4,046,000   | gallons 36,004,000 | £ 4,848,000   |
| Cider and perry ..                                                  | gallons 2,663,000       | 151,000*      | 8,653,000          | 667,000       |
| Wine, British made                                                  | 817,000                 | 108,000*      | 1,742,000          | 399,000       |
| Vinegar and acetic acid ..                                          | 14,763,000              | 422,000*      | 14,613,000         | 979,000       |
| Lime and lemon juice                                                | } 1,794,000             | 203,000       | { 531,000          | 151,000       |
| Other fruit juices..                                                |                         |               |                    |               |
| Non-alcoholic drinks, brewed (e.g., ginger beer, herb beer, etc.).. | —                       | 221,000*      | —                  | 392,000       |
| Beer and ale purchased and bottled ..                               | —                       | 164,000       | —                  | 2,144,000     |
| Other liquors purchased and bottled ..                              | —                       | 19,000        | —                  | 439,000       |
| Other products ..                                                   | —                       | 265,000       | —                  | 331,000       |
| Total value ..                                                      | —                       | 5,562,000     | —                  | 10,391,000    |

\* In order to avoid the possible disclosure of particulars relating to certain firms, the figures for Ireland (amounting to £37,000) were, in these cases, included with those for the rest of the United Kingdom in the year 1907. This sum is not included in the total for the year 1907.

The quantities of table waters made were required to be returned in terms of dozens of bottles in 1907 and in gallons in 1924, and this difference in the units of measurement precludes any exact comparison between the quantities of table waters produced in the two years. It is, however, clear that, taking into account the price changes that have occurred, the output of 1924 has considerably declined compared with that of 1907. A heavy decrease will also be observed in the production of lime and lemon juice and other fruit juices, in which case a comparison in terms of quantity manufactured is practicable. On the other hand, the output of cider and perry made in factories in 1924 is more than three times that for 1907, and the output of British wine has more than doubled. The value shown for 1924 in respect of non-alcoholic drinks, brewed, probably represents some decline in quantity compared with the earlier year.

### EXPORTS AND IMPORTS

In the following table are shown the quantities and values of exports and net imports of the products of this trade in the year 1924:—

| Products                   | Exports, 1924   |           | Net Imports, 1924 |           |
|----------------------------|-----------------|-----------|-------------------|-----------|
|                            | Quantity        | Value     | Quantity          | Value     |
| Table waters ..            | gallons 434,000 | £ 165,000 | gallons 878,000   | £ 173,000 |
| Cider and perry ..         | 124,000         | 25,000    | 1,114,000         | 50,000    |
| Wine, British made         | 16,000          | 6,000     | —                 | —         |
| Vinegar and acetic acid .. | 606,000         | 128,000   | 276,000           | 50,000    |

Only a small fraction of the total production during the year was exported, and the relatively high export values suggest that the exported products were not of the same general quality as those produced for consumption in this country.

The imports of table waters were almost entirely of unsweetened waters, and amounted in quantity to about 8 per cent. of the quantity of such waters produced in the United Kingdom, as shown by the reports of the Commissioners of Customs and Excise. It would appear from those reports that the quantity shown above, as produced by firms whose output is reviewed, was nearly four-fifths of the total produced by all firms in the United Kingdom in 1924.



## Biochemical Principles

BIOCHEMISTRY is simply another name for the chemistry of life (*bios*=life), so that naturally it is a subject which interests everyone. The chemistry of living processes differs from ordinary chemical changes or reactions in being part of the continual regeneration and growth of a living substance, known as protoplasm (the Greek equivalent for the first-formed substance). There is a marked tendency to re-name this bioplasm in consonance with the nomenclature involved in the term biochemistry, since the latter comprises the study of transformations produced in and by a vitalised substance (bioplasm), which lives in water.

The health of the living organism is bound up with the activity of living matter, which is so sensitive to its watery environment that the real marvel of our existence lies in the fact that the requirements for the origin of life were ever fulfilled. The second surprising circumstance is that plants and animals, by a process of evolution, have not only been able to maintain life in favourable circumstances, but that they have become adapted to existing under decidedly adverse circumstances. For example, human beings present an astonishing resistance to the effects of injury and the ravages of diseases, provided these do not throw the whole of the living mechanism out of gear. The virulence of a disease or the toxicity of a poison is measured according to the disturbance it produces upon the ordered processes of life. All that medicinal treatment can do is to restore this metabolism to its normal routine. The newer and wider utility of biochemistry is to discover the means whereby a disordered state of metabolism can be avoided. Thus biochemistry continues in modern science the old adage that "Prevention is better than cure." Curiously enough it is the very complexity of the human organism with its elaborate circulatory systems and special glandular controls that enables experimental biochemistry to gain an insight into the involved processes of life. The discovery of a substance like insulin profoundly affects existing ideas of general metabolism, but it would be fatal to progress in the alleviation of human suffering if biochemists fell into the popular error of supposing that their isolation had solved the problem of curing a specific disease. The real solution of the problem of disease is to encourage the bodily tissue to secrete once more their own active principles, or, since glandular organs are so frequently damaged beyond repair, to provide in the daily diet the wherewithal to maintain these in a healthy state, and thereby prevent their degeneration. Though drugs and chemicals will always find a place in the treatment of disease; good food, fresh air, sunlight, and bodily exercise are equally important from a biochemical standpoint. Already physiology has become a subdivision of biochemistry in its widest aspect, with pharmacology as a subsection of experimental physiology. The rendering of principles available for therapeutic use, following their discovery through biologic research, will remain a task for the newer type of pharmaceutical scientist in process of training.

In interpreting vital phenomena, the biologist, who has little time for chemical training, is still inclined to rely upon mysterious vital forces to account for the never-ceasing but ordered phenomena constituting life. The chemist, on the other hand, requires metabolic changes to be explained in terms of molecular transformations or chemical reactions, but possesses very limited views on energy transformations. The real biochemist endeavours to link together the innumerable factors controlling the ceaseless physico-chemical changes which constitute life.

To the clinical research worker falls the unenviable task of attempting to put into practice such advances as may result from scientific investigations made in the interests of pure science. The pharmacologist then has to set up standards and agree upon the technique to be followed in making tests on animals. So important is this phase of biochemical progress that for the first time in the history of medicine international agreement has been reached in regard to the standardisation of therapeutically potent (biological) preparations. Even more significant is the fact that State-aided research is actively engaged in devising standards which will apply auto-

matically as soon as they are agreed upon. Accordingly biochemical assay will no longer depend upon the idiosyncrasy of an individual investigator, or the routine process devised in a manufacturing laboratory. These innovations emphasise the importance of details of technique in practical biochemistry, and these minutiae of testing give an erroneous impression that biochemistry is bewildering beyond comprehension.

### LIFE A CONTINUAL CHANGE

The broad outlines of modern biochemistry are agreed upon generally by physiologists, from biological, chemical, and physical standpoints. All scientists recognise that living processes consist of continual change, and it must be obvious to even the beginner that life cannot be arranged according to cut and dried schedules to fit the exigencies of experimental investigations, hence the difficulties and uncertainties of animal tests.

The great fascination of biochemistry lies in its ever-changing front and the lessons of life it affords. Success in growth and reproduction by a living organism demands co-ordinated efforts to replace haphazard happenings. The most successful living organism (man) achieved his dominant status by *seeking*, as well as holding on to, prime principles. Many individuals fell by the way in the evolution of man as a sentient and thinking being. This process of trial and error on evolutionary progress still applies with the advantage that biological procedure finds efficient substitutes for experiments *in corpore vivo*. Likewise science, in striving to reach the light of greater understanding, must continue to build its edifice of knowledge upon foundations derived from dead theories. Names devised to fit some theory become less apt than formerly to lead astray because in modern science experience and experiment are used to act as a check on speculation. The more brilliant promise this last may hold the greater is the searching criticism to which it is subjected. Nevertheless, discoveries are made so rapidly in biochemistry that text-books cannot keep up with newer developments and are apt to be sadly misleading on vital matters. Dogmas are inevitable in teaching students to answer examination questions and manuals on medicine exhibit a positiveness contrary to the open mind of biological thought of to-day. However, a dominating tendency in biochemistry of to-day is to regard living processes as a balance which is continually restored, and this truth is inculcating a more balanced mentality throughout modern science. Biological knowledge makes us more tolerant of the inborn imperfections of individuals who can never escape their infirmities, and creates a desire to prevent their perpetuation, which can only become possible by public recognition and support of biological principles in preference to ideals founded upon faiths which do not agree with facts.

### THE CHEMISTRY OF LIFE

Life consists of (perishable) organic combinations containing a skeleton of carbon atoms united to hydrogen, oxygen, nitrogen, sulphur and phosphorus. These living structures cannot exist except in watery solution containing "ions" of other essential elements (potassium, calcium, magnesium, iron, etc.), the list of which continues to grow longer, as traces of impurities (fluorine, iodine, manganese, aluminium, silica, etc.) are found to be essential for the continuation of life and the propagation of living things. The characteristic property which distinguishes the organised structure of living substance from dead matter is its power of metabolism or continuous change so long as a suitable source of energy is available in the form of "food." These metabolic processes are at the same time both destructive and regenerative. The (heat) energy produced by the self-destruction of living matter enables it to produce that streaming motion which always accompanies protoplasmic activity. It is apparent that unless living tissues are re-formed at least as fast as they are broken down, life must cease. The metabolic activity (with accompanying chemical changes) are a necessary corollary of the perpetual motion exhibited by protoplasm. The vital necessity of this motility has not been sufficiently emphasised in the past. The protoplasm by virtue of its movement continually presents new surfaces for absorption and excretion, while the external food solution



is also constrained to circulate, which brings forward fresh materials and carries away degradation products. This streaming together of living matter and its environment constitutes the beginnings of that regulated "balance" and directed effort met with in all the phenomena attendant upon the processes of life, for protoplasm by its varying permeability can in some measure control the strength of the solution in contact therewith, and as a matter of fact death results if it is not able to keep this within working limits. On the other hand, protoplasm can retain within itself food materials which would be washed away if free entry and exit were allowed, and this self-regulatory control forms the paradox of life. Nevertheless, though this is the supreme mystery of living mechanics, there is no reason to suppose that the ordered processes of life differ in any way from ordinary physical and chemical changes.—Indeed, biochemical transformations are teaching that *all* chemical reactions are reversible to an extent dependent upon their immediate surroundings. This reversibility is just what is found in the chemical exchanges constituting life. Instead of taking one-sided views (such as respiration being oxidation of sugar to carbon dioxide and water), it will be requisite for a true understanding to recognise that building up and breaking down can go on together, and that the direction of the change always tends to reverse itself unless the active products are separated. [Thus it is customary in modern biochemistry to speak of oxidation-reduction reactions, and for enzymes to be looked upon as reversible catalysts. In both cases the concentrations of the reacting substances and the temperature of the solution determine the equilibrium finally attained.] The most distinctive feature of living processes is the narrow range permissible for either ionic concentration or temperature variation. Optimum conditions can be easily found for the lowliest organisms (e.g., bacteria), but the optimum conditions have become the normal state, with progressive evolution of organs to stabilise metabolism, so much so that a human being showing excessive metabolic activity is said to have a temperature and be "ill."

The simplest mind picture of protoplasm is to regard it as consisting of an organised jelly (or colloid), its insoluble substance existing as an open framework of protein-like material in intimate contact with its watery supporting medium. Then the chemistry of life becomes electro-chemical exchanges which take place between the activated atoms in molecules of this living meshwork of protoplasmic substance and those of the food solution flowing continually thereby. In other words, biochemistry is the study of physico-chemical exchanges at the "interfaces" between a living substance and dead matter in solution, the latter on incorporation with protoplasm becoming endowed with vitality (which is gained as a consequence of the degradation of the energy content of some other substance).

Thus life is represented by ceaseless physical and chemical exchanges taking place at the separating surfaces (or interfaces) between protoplasm and its food solution. The ultimate result of these transformations are exceedingly complex, but the conditions under which they occur are such that they must proceed by very simple steps. Throughout Nature the student finds elaborate structures built up by repetition of simple operations, and the organic processes of life are oxidation, reduction, neutralisation, hydrolysis, and condensation, conducted according to some plan imposed upon an organism by its ancestry. The physiological responses of protoplasm to slight changes in the kind of "ions"\* is known as irritability, and there is no doubt that this is an electro-chemical response (usually a contraction) to an undesirable change in environment. The reactions consist in some modification of the pre-existing electro-chemical equilibrium and an attempt to re-adjust the metabolic balance. Water is the medium in which all life processes occur and through which protoplasmic stimuli must be transmitted, yet its peculiar ionising properties are decidedly neglected in biological studies, considering that water enters into and influences every metabolic change in either a chemical or physical

capacity. By including water in the cycle of physico-chemical operations constituting life, it is possible to express metabolic processes in terms of simple electronic exchanges. This is quite in accord with the modern conception of hydrogen ion concentration, whereon water by dissociation yields positive or acidic hydrogen ions and negative or alkaline hydroxyl ions. Inorganic salts dissolved in water are said to be electrolytes because they also give so-called positive and negative ions by (electro-chemical) dissociation (*in water*). The gain of an elementary unit of matter ("electron") corresponds to a *reduction*, and the loss of an electron is equivalent to an *oxidation*. *Neutralisation* consists of the union of unlike ions (e.g., hydrogen and hydroxyl ions). (An electronic exchange may be a more accurate representation than a chemical equation, as in the reversible change of ferrous chloride into ferric chloride:  $\text{Fe}^{++}\text{Cl}_2 \rightleftharpoons \text{Fe}^{+++}\text{Cl}_3$ ). The production of complex organic substances (e.g., starch by *condensation* of sugar molecules) ordinarily consists of the removal of water between the condensing molecules. Starting with the simple principles outlined above, combined with the well-known property of the carbon atoms of linking together into chains and rings, one can readily build up structures with definite (stereo-chemical) arrangements in space. There remains, however, the reasons why such occurrences can happen, and this is bound up with energy transformations and heat production. The physico-chemical nature of proteins and enzymes is inseparable from water and its temperature. In fact, the sensitivity of their "adsorption" surfaces to temperature and solution strength (electro-chemical equilibrium) presage properties belonging to living matter. In the directed working in unison of organised living units the removal of waste heat is equally important as elimination of waste materials, and both are accomplished by the same circulation of protoplasm and its watery supporting medium. The ordered movements and continuous structural changes of life are both part of self-same electro-chemical exchanges which are made continuous (by circulation) as compared with the stagnant equilibria of our test-tube chemistry. Little by little is Nature's way, with endless repetition as a means of large-scale production. Every working unit is limited in size because surface (for exchanges) must always be a limiting condition. The order of dealing with the principles of the chemistry of life will be from simple elements to co-ordinated complexes in accordance with the following schedule:—

#### Schedule I.—Biochemical Subjects

|                                             |   |                                         |
|---------------------------------------------|---|-----------------------------------------|
| Constituents of living matter               | { | Electrons                               |
|                                             |   | Atoms (neutral and activated)           |
|                                             |   | Water                                   |
|                                             |   | Carbohydrates                           |
|                                             |   | Fats                                    |
| Protoplasm and its properties               | { | Proteins                                |
|                                             |   | Enzymes                                 |
|                                             |   | Irritability                            |
|                                             |   | Permeability                            |
|                                             |   | Growth                                  |
| The living cell and its balanced metabolism | { | Reproduction                            |
|                                             |   | Heredity                                |
|                                             |   | Oxidation-reduction                     |
|                                             |   | Sulphur metabolism                      |
|                                             |   | Phosphate metabolism                    |
| Disease and/or unbalanced metabolism..      | { | Proteins and iso-electric precipitation |
|                                             |   | Gland therapy (hormones)                |
|                                             |   | Deficiency diseases (vitamins)          |
|                                             |   | Infection and immunity                  |
|                                             |   | Uses                                    |
| Biological products ..                      | { | Standardisation                         |
|                                             |   | Limitations                             |

#### BIOCHEMISTRY FROM A PHARMACEUTICAL STANDPOINT

The pharmacist may with reason inquire in what respect can biochemistry extend either his education or his business. By modifying the syllabus of subjects to show its medicinal aspects, as in Schedule II below, that biochemical knowledge is required every day in the full practice of his profession. It is very evident that many forms of therapy are just special phases of practical biochemistry. Furthermore, even flavourings and per-

\* Ions are atoms or atomic groupings carrying an electric charge.



fumery had their origins as consequences of biochemical evolution.

### Schedule II.—Biochemistry in its Medicinal Aspects

| <i>Biological Science</i> | <i>Chemical Constituents</i>                                                                                | <i>Therapeutics</i>                                                |
|---------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| Metabolism .. ..          | Essential salts ..<br>Carbohydrates ..<br>Fats ..<br>Proteins ..                                            | Dietetics                                                          |
| Plant protection ..       | Alkaloids and astringents ..<br>Colouring materials ..<br>Flavouring materials ..<br>Aromatic substances .. | Medicine<br>Pharmacy<br>Perfumery<br>Food, condiments and flavours |
| Bacteriology .. ..        | Enzymes ..<br>Toxins ..<br>Antigens ..                                                                      | Indigestion<br>Immunology                                          |
| Biological principles ..  | Hormones ..                                                                                                 | Gland therapy                                                      |
| Accessory factors ..      | Vitamins ..                                                                                                 | Deficiency diseases                                                |
| Radiation reactions ..    | Pigmentation ..                                                                                             | Radiology                                                          |

It would be easy to enlarge on the above subdivisions of biochemistry, and to expound these from a pharmaceutical viewpoint. The reader who grasps the salient principles of biochemistry also gains a wider outlook in life, in an economic and social sense as well as from a scientific standpoint.

## Sporting Events

At Southampton, on June 1, a cricket match between teams representing the local and the Portsmouth chemists resulted in a win for the former by 114 runs to 84. The top scorers were E. Altenheim (19) and F. Trussler (18) for Southampton, and Ballantyne (22), Carter (14) and Nightingale (14) for Portsmouth. During the tea interval Mr. Young welcomed the visitors, and Mr. Nightingale suitably responded.

The annual competition for the McMullan Challenge Cup was played on June 1 at Donaghadee Links, over forty players taking part. The competition was eighteen holes stroke win, two classes with two semi-finalists in each class. The results were as follows: In the semi-final class A, Mr. A. T. Hardy beat Mr. H. McRoberts—1 up, and in class B, P. Mallon beat J. S. Balmer—1 up. In the final Mr. Hardy beat Mr. Mallon—2 up. At the conclusion the prizes were presented to the finalists and semi-finalists by Miss C. Lancashire, Ballymena. The consolation stroke resulted as follows: S. R. Forrest, 86, 19-67; F. D. M'Mullan, 83, 14-69; C. Stewart, 87, 15-72; J. J. B. Breakey, 92, 20-72. The host was Mr. Lewis Murray, and after lunch a vote of thanks for his hospitality was passed. The outgoing Council was re-elected, with the addition of Mr. Murray to the list of Vice-Presidents. A suggestion to arrange an inter-club match with the Dublin chemists was approved, and left for the committee to arrange in the autumn.

To celebrate the winning (for the second time) of the Leicestershire Thursday Football League cup, Leicester Pharmacy Football Club held a dinner at the Magazine Hotel on June 1. The chair was occupied by Mr. Fred Moore, who was supported by Mr. J. L. Langham (secretary) and Mr. Judge. Replying to the toast of the club, the chairman said the season just finished found Pharmacy in the final for the fifth time in seven years, a remarkable record of consistent cup form. The League record was also good, the club finishing the season third from the top. Mr. Judge also spoke. "The Ladies" was proposed by the club captain, "Jock," and the response was made by Mrs. Bennett. The members of the winning team were: Messrs. Langham, Judge, Woodcock, Christie, Herrick, Berry, Gamble, Webster, Froude, Chaplin, Bennett, Sharp and Barnsby. Vocal talent was presented in abundance, and Messrs. Bennett, Froude and others, supported by the Pharmacy Quartette, entertained the company.

On June 1 a representative number of Liverpool and Manchester golfing pharmacists assembled on the Southport and Ainsdale golf course to compete for the Gibbs

challenge cup, which Manchester have held since its inception in 1923. This year Liverpool won it by five points, as will be seen by the scores:—

| <i>Liverpool</i>    | <i>Manchester</i> |
|---------------------|-------------------|
| Cole ... .. 76      | Aves ... .. 75    |
| Fairbairn ... .. 78 | Collins ... .. 76 |
| Derrick ... .. 79   | Stuart ... .. 77  |
| Jones ... .. 81     | Miller ... .. 83  |
| Ashworth ... .. 31  | Turner ... .. 83  |
| Alder ... .. 82     | Bostock ... .. 83 |
| Jewell ... .. 83    | Sturdy ... .. 85  |
| Duncan ... .. 84    | Breese ... .. 87  |
| 644                 | 649               |

After high tea, Mr. A. J. Pidd, President of the Manchester Society, said it was all to the good for Liverpool to win the cup, and he did not begrudge Liverpool having it for one year. (Laughter.) He heartily congratulated them on their win. Mr. Hill, representing D. & W. Gibbs, Ltd., apologised for the absence



Photo] [Cleworth  
THE LIVERPOOL TEAM WITH THE GIBBS' CHALLENGE CUP AND THEIR REPLICAS

of Mr. Gerard Gibbs, who was abroad at present. He also congratulated Liverpool on their victory, and handed the cup to Mr. Cooling (captain), who expressed great pleasure in receiving it on behalf of his fellow-golfers. He hoped they would be able to retain the custody of it for many years. Mr. Hill then presented the replicas of the cup. The special prize, two cut-glass ash trays, presented by Mr. Hill for the best net score (for those outside the Gibbs competition), was divided between Mr. Bury and Mr. Stout, who tied. Cordial thanks were accorded to Messrs. Gibbs and to Mr. Hill.

The annual competition for the Ayrton Saunders trophy of the Scottish Chemists' Bowling Association, held recently on Queen's Park green, Glasgow, resulted as follows:—

|                                   |                                    |
|-----------------------------------|------------------------------------|
| H. G. Gray, Glasgow ... 25        | J. Geddes, Edinburgh 12            |
| G. McDonald, Glasgow 21           | F. Stuart, Broxburn ... 14         |
| T. M. Gray, Saltcoats 18          | C. B. Lee, Glasgow ... 12          |
| W. S. Culbert, Airdrie 27         | J. B. McLaren, Kirkcaldy ... .. 22 |
| J. Carmichael, Leslie ... 20      | J. T. Simpson, Glasgow 16          |
| A. W. Ritchie, Montrose 17        | J. R. Milne, Dundee ... 15         |
| H. P. Arthur, Glasgow 23          | G. Jarvie, Kirkintilloch 23        |
| D. G. McKenzie, Glasgow ... .. 17 | C. Dawson, Aberfeldy ... 17        |

At the annual meeting held after the game, Mr. G. Jarvie (President) in the chair, the trophy was presented to the winning skipper, Mr. Gray, and badges to the rink, Messrs. F. Gray, A. Calder, M. Wallace and H. S. Gray. The runners-up, Messrs. A. Morton, J. W. Logan and G. McDonald, were also presented with second prizes. Office-bearers were elected as follows: President, Mr. Bayne; Vice-President, Mr. J. T. Simpson; Committee, Messrs. J. R. Milne (Dundee), J. S. B. Heddle (Edinburgh), J. W. Logan (Glasgow); Secretary and Treasurer, Mr. J. T. Simpson, 268 Crown Street, Glasgow. It was decided to hold next year's competition at Dundee. The Scottish Travellers' trophy will be played for on September 7 in Glasgow.



## New Solvents and their Specific Uses

### XV. Chlorinated Organic Compounds

DERIVATIVES of methane and ethane in which the hydrogen is partly or wholly replaced by chlorine have long been known as excellent solvents, primarily as chloroform in pharmacy, and in industry, soon after the beginning of the present century, in the form of chlorinated derivatives of methane, ethane and ethylene. These have not fulfilled their early promise of providing ideal non-inflammable solvents for fat extraction and dry cleaning, mainly because of toxic tendencies. Nevertheless, the use of chlorinated solvents is ever-extending in industry, methods of exhausting solvent vapours having become very efficient during recent years. The distinctive features of organic solvents containing chlorine are: (i) Non-inflammable, or of low inflammability; (ii) specific gravity considerably greater than that of water; (iii) low latent heat of vaporisation. Their drawbacks are tendency to acid decomposition in the presence of light and moisture, and the anaesthesia produced by their toxic vapours. The organic chlorinated solvents cover a useful volatilisation range, having boiling points as low as 41° C. and as high as 159° C. Their tendency to produce hydrochloric acid militates against their use in lacquers. On the other hand, their toxic properties are leading to their application as insecticides. Individuals vary in their susceptibility to these chlorinated compounds, but in general all the chlorinated derivatives of methane, ethane and ethylene follow their best-known member, chloroform, in suspending animation when inhaled in quantity, with death upon unduly prolonged anaesthesia. Tetrachlorethane may, by constant inhalation, set up a toxic form of jaundice. These chlorinated organic compounds are peculiar among solvents in being free from troublesome restrictions on storage and during transport. Their freedom from fire risks has led to their widespread adoption for dry cleaning and textile scouring. The commercial chlorinated solvents have names and characteristics as follows:—

| Name                        | Formula                              | Boiling point (° C.) | Specific gravity (at 15° C.) |
|-----------------------------|--------------------------------------|----------------------|------------------------------|
| <b>Methane Derivatives</b>  |                                      |                      |                              |
| Methylene chloride          | .. $\text{CH}_2\text{Cl}_2$          | 41                   | 1.33                         |
| Chloroform                  | .. $\text{CHCl}_3$                   | 61                   | 1.49                         |
| Carbon tetrachloride        | .. $\text{CCl}_4$                    | 77                   | 1.60                         |
| <b>Ethane Derivatives</b>   |                                      |                      |                              |
| Ethylene dichloride         | .. $\text{CH}_2\text{Cl}$            | 85                   | 1.28                         |
|                             | $\text{CH}_2\text{Cl}$               |                      |                              |
| Tetrachlorethane            | .. $\text{CH}_2\text{Cl}_2$          | 144                  | 1.60                         |
|                             | $\text{CH}_2\text{Cl}_2$             |                      |                              |
| Pentachlorethane            | .. $\text{CH}_2\text{Cl}_2$          | 159                  | 1.68                         |
|                             | $\text{CH}_2\text{Cl}_2$             |                      |                              |
| Hexachlorethane             | .. $\text{CCl}_3$                    | 185                  | 2.09                         |
|                             | $\text{CCl}_3$                       | (sublimes)           |                              |
|                             | $\text{CCl}_3$                       |                      |                              |
| <b>Ethylene Derivatives</b> |                                      |                      |                              |
| Dichlorethylene             | .. $\text{CHCl}$                     | —                    | 1.28                         |
|                             | $\text{CHCl}$                        |                      |                              |
| Trichlorethylene            | .. $\text{CHCl}$                     | 87                   | 1.47                         |
|                             | $\text{CHCl}$                        |                      |                              |
| Perchlorethylene            | .. $\text{CCl}_2$                    | 119                  | 1.62                         |
|                             | $\text{CCl}_2$                       |                      |                              |
|                             | $\text{CCl}_2$                       |                      |                              |
| <b>Glycerin Derivatives</b> |                                      |                      |                              |
| $\alpha$ -di-chlorhydrin    | .. $\text{CHCl}$                     | 178                  | 1.37                         |
|                             | $\text{CH.OH}$                       |                      |                              |
|                             | $\text{CH}_2\text{Cl}$               |                      |                              |
| Epichlorhydrin              | .. $\text{CH}_2\text{Cl}$            | 117                  | 1.19                         |
|                             | $\text{CH}$                          |                      |                              |
|                             | $\text{CH}_2 > \text{O}$             |                      |                              |
| <b>Benzene Derivatives</b>  |                                      |                      |                              |
| Monochlorbenzene            | .. $\text{C}_6\text{H}_5\text{Cl}$   | 132                  | 1.11                         |
| Dichlorbenzene              | .. $\text{C}_6\text{H}_4\text{Cl}_2$ | 172                  | 1.35                         |

The lighter solvents evaporate without leaving any appreciable residue or odour when pure. Dichlorethylene and dichlorbenzene are mixtures of two stereoisomers. The ethylene chlorinated compounds are stable in the absence of light, and can be stored in iron drums or barrels. Carbon tetrachloride and tetrachlorethane are reduced in the presence of moisture by iron, zinc and most common metals except lead or tin. Hence tanks, pipes, etc., have to be protected against corrosion by tinning or lead lining in the case of the last two solvents.

*Methylene chloride* of commerce is a volatile solvent of about 98 per cent. purity, which, owing to its low inflammability, is used in place of solvent naphthas for dissolving oils and resins in cases where fire risks outweigh extra cost.

*Chloroform* from acetone is available in a high state of purity as an industrial solvent, but cannot compare in price with carbon tetrachloride. Hence its use is limited to applications where purity is the prime consideration, as in making rubber solutions for surgical use.

*Carbon tetrachloride* is made on a large scale by the interaction of carbon disulphide and chlorine in the presence of a suitable catalyst. In modern processes the sulphur chloride simultaneously produced is converted into sulphur and more carbon tetrachloride by mixing the vapours with carbon disulphide and passing the mixture over heated metallic iron. Regeneration of carbon disulphide from the melted sulphur makes the process for the production of carbon tetrachloride continuous. The production practically direct from raw materials enables this solvent to be one of the most economical in price, despite its high specific gravity. Its price in bulk ranges between £45 and £50 per ton according to quantity. Carbon tetrachloride is largely used as a fire-extinguishing fluid, especially against petrol fires in motor-cars. It also finds uses as a non-inflammable rubber solvent. The presence of carbon disulphide in carbon tetrachloride increases the toxicity of the heavy vapour which hinders its wider application. The scare of *status lymphaticus*, an obscure condition which was put forward as the cause of death following "dry shampooing" with carbon tetrachloride, ended its career as a non-inflammable hair wash, and added somewhat unjustly to a reputation that is avoided by the use of exhaust fans in other sections of the solvent industry. A modern medicinal outlet for carbon tetrachloride is as an anthelmintic, but for this purpose careful purification is essential and storage in glass away from light and air. All chlorinated solvents are decomposed by light in the presence of moisture with the formation of toxic chlorine compounds (notably phosgene) and hydrochloric acid. Acidity is a good guide as regards decomposition, and it is this production of acid that leads to corrosion of iron containers. Carbon tetrachloride is an excellent solvent for extracting fats from oil cake or bone waste, but chlorinated ethane derivatives are mainly used for this purpose, being purer, more stable, and usually cheaper.

*Ethylene dichloride* is a comparatively new solvent, though it has long been known to chemists as "Dutch oil." It is not so inflammable as the more chlorinated organic solvents. Its vapour/air mixtures can be exploded with difficulty, and the liquid will not support a flame. It resists better the action of moisture (steam, etc.) than carbon tetrachloride. Ethylene dichloride has recently become a competitor to carbon tetrachloride in the United States, the price towards the end of last year being reduced to 6 cents per lb.) from 35 cents. in 1923). The difference in specific gravity makes the parity of carbon tetrachloride (in volume) at 4.75 cents. per lb., whereas the price of the latter ranges around 7 cents per lb.

**SPECIALITIES FOR PERU.**—According to a report to hand from Lima, foreign pharmaceutical specialties imported into Peru through the Amazon port of Iquitos are exempted from the consumption tax of 6 per cent. *ad val.* which was imposed in December 1926 on imports of these preparations for the purpose of creating funds for the building of a clinic in Lima.



## Personalities

MR. J. R. MASSEY, chemist and druggist, Bolton, has successfully contested a municipal by-election in Church ward.

OWING to the illness of Mr. S. Wright (D. & W. Gibbs, Ltd.), his journey is being undertaken by Mr. E. L. Fuller.

MR. REGINALD W. BARKER, 56 Ludgate Hill, London, E.C.4, has been elected Master of the Parish Clerks' Company.

MR. T. E. DAVIES, M.R.C.S., L.R.C.P., B.Sc., son of Mr. David Davies, chemist and druggist, Bute Road, Cardiff, has graduated M.B., B.S., in the University of London.

SIR RICHARD GLAZE BROOK, K.C.B., F.R.S., has been appointed a member of the Advisory Council to the Committee of the Privy Council for Scientific and Industrial Research.

MR. R. J. STRATTON, chemist and druggist, chief dispenser at the East Suffolk Hospital, Ipswich, met with a cycling accident near Claydon on June 7, with the result that his leg was broken.

MR. N. COLMAN, son of the late chairman of J. & J. Colman, Ltd., mustard manufacturers, Norwich, has been adopted as a candidate in the parliamentary by-election in the Brixton division of London.

IN our notes last week (p. 694) about Mr. R. Wood's pharmacy, St. James's Street, Brighton, we fell into an error. The business is under the management of Mr. O. H. Harding, chemist and druggist, who is assisted by his son, Mr. F. Harding.

MR. M. N. CAMA, of Cama, Norton & Co., drug importers, Bombay, India, is at present in London, and desires to get in touch with manufacturers who want to cultivate export trade with India. Mr. Cama will be in London until June 15, and may be addressed c/o THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.4.

HONOURS conferred by his Majesty the King in connection with his birthday (June 3) include the following:—Mr. T. J. Barnes, solicitor to the Board of Trade, Dr. C. J. Martin, director of the Lister Institute, and Mr. J. H. Shaw, solicitor to the Board of Inland Revenue, are created knights; the G.B.E. (civil) is given to Sir Henry Heath, K.C.B., late secretary to the Department of Scientific and Industrial Research, and Sir Richard Threlfall, F.R.S.; the C.B.E. (civil) is bestowed on Mr. Percy Ashfield, J.P. chemist and druggist, Rhyl; and the honorary M.B.E. is conferred on Mr. Samuel Tokowsky, Tel Aviv, Palestine, who was well known in London drug-trade circles during the European war.

## Wills

MR. GEORGE TUBBS, 34 Barlows Road, Edgbaston, Birmingham, of the Hockley Chemical Co., Ltd., who died on February 15, left £33,370 3s. 10d., with net personalty £31,880 17s. 1d. The will has been proved by Gilbert Pinson, 33 Newhall Street, Birmingham, Frederick Sunderland, and Frank Russell Tubbs.

MR. BARRATT CARRINGTON SELLARS, J.P., Mossbrook House, Fairfield, manufacturing chemist and Portland cement manufacturer, of the East Lancashire Chemical Co., and the Droydsden Portland Cement Works, who died on February 23, left estate of the gross value of £76,372 11s. 3d., with net personalty £17,355 0s. 9d.

## Marriages

ASKEW—HORSLEY.—At St. Paul's Church, Blackburn, recently, Benjamin Askew, chemist and druggist, to Doris Annie Horsley.

SMITH—PAYNE.—At the Parish Church, Thrapston, on June 2, Lionel W. Smith to Elsie, eldest daughter of Mr. J. H. Payne, chemist and druggist, Market Place.

## Deaths

ELLIOTT.—At Newby, Scarborough, recently, after a brief illness, Mr. Robert Elliott, Ph.C., aged eighty-seven. Mr. Elliott, who was born at Newcastle-upon-Tyne, passed the Major examination in 1861, and carried on business at 279 High Street, Gateshead, for more than fifty years. The business was converted into a limited company in 1921. Mr. Elliott took an interest in bowls, billiards and gardening. He is survived by three sons and two daughters.

GEMMELL.—At Whitehall, Ardrossan, on June 1, Mr. Hugh Gemmell, chemist and druggist, aged seventy-nine.

JONES.—At Blaenau Festiniog, on June 2, Mr. Robert Jones, son of Mr. Hugh Jones, chemist and druggist, aged twenty-three.

LLOYD.—At Hersedd, Mold, on June 1, Mr. Benjamin Caradoc Lloyd, chemist and druggist, 120 Marsh Lane, Bootle. Mr. Lloyd passed the Qualifying examination in 1891.

NEILL.—Recently, Mr. Allan Neill, son of Mr. E. A. Neill, chemist and druggist, Penrhyn Road, Colwyn Bay, aged eighteen. Mr. Neill, who was serving his apprenticeship to his father, died as the result of a motor-cycling accident.

PECHEY.—At his residence, 33 Camperdown, Great Yarmouth, on June 7, Mr. Henry Pechey, retired chemist and druggist, aged eighty-two. Mr. Pechey at one time carried on business in the Market Place. He served on the Board of Guardians, and was also for several years one of the borough elective auditors.

WRIGHT.—At Carmangay, Alta., Canada, on May 15, Mr. William Scott Wright, brother of Mr. G. Victor Wright, chemist and druggist, Edinburgh.

## Therapeutic Substances Act

IN pursuance of Section 5 of the Therapeutic Substances Act, 1925, the Joint Committee have now issued Regulations regarding the manufacture and importation of therapeutic substances scheduled in the Act. The Regulations will come into operation on August 6 next, except those relating to labelling, which will come into operation on February 6, 1928. Persons desiring to manufacture or import any scheduled substance after August 6 in Great Britain or Northern Ireland will require a licence, application for which should be made immediately. Such application should be addressed in the case of England and Wales to the Ministry of Health, Whitehall, S.W.; in the case of Scotland, to the Scottish Board of Health, Edinburgh; and in the case of Northern Ireland, to the Ministry of Home Affairs, Belfast. The Regulations now issued differ in some respects from the draft published on April 5, certain modifications having been made to meet representations received. Copies of the Regulations are obtainable from H.M. Stationery Office, at Adastral House, Kingsway, London; 120 George Street, Edinburgh; York Street, Manchester; 1 St. Andrew's Crescent, Cardiff; 15 Donegal Square West, Belfast; or through any bookseller.

The Minister of Health has intimated to the Association of British Chemical Manufacturers that, in the initial period immediately after August 6, some latitude will be observed in the application of the Regulations, so as to allow for the clearance of existing stocks and for those concerned to become familiar with the new requirements. In this connection attention is drawn to the fact that the Regulations relating to labelling will not operate until February 6, 1928.

AN ARTISTIC ADVERTISEMENT.—We have received from Mr. Horace Wright, chemist and druggist, Chandos Pharmacy, Edgware, a copy of a four-page folder which he distributes. The front page of the folder contains a detachable illustration (from his own drawing) of the Chandos Gateway, which faces Mr. Wright's shop, and the gateway is made to serve as an introduction to a neatly worded and well-printed address to the public.



## Trade-marks Applied for

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary," 1926, p. 309.

(From "The Trade-marks Journal," May 11, 1927.)

- "SPEDEX"; for all goods (11). By The Penharho Mfg. Co., Ltd., 46 Paradise Street, Liverpool. 479,063.
- "NEOPOSIT" with device of spark on black oblong; for photographic papers (39). By A. Bloch, Rue de Spa 7, Brussels, Belgium. 477,545.
- "VALLA"; for beverages (42). By Jewsbury & Brown, Ltd., 7 Ardwick Green North, Ardwick, Manchester. 478,554.
- "MARY IN THE GARDEN"; for food substances (42) and for mineral waters, etc. (44). By Armour & Co., Ltd., Queen's House, Kingsway, W.C.2. 479,360/361. (Associated.)
- "CAMOVA"; for goods (48). By Emma M. W. Williams, 69 Meadow Street, Alexandra Park, Manchester. 477,476.

(From "The Trade-marks Journal," May 18, 1927.)

- "SIEMENS & HALSKE" on shield device, with monogram "S H"; for chemicals (1), goods (8), surgical instruments, etc. (11). By Siemens & Halske Aktiengesellschaft, 101 Nonnendamm-Allee, Berlin-Siemensstadt, Germany. 474,991/996/997. (Associated.)
- "EMAILITE"; for chemicals (1). By Titanine-Emailite, Ltd., 175 Piccadilly, London, W.1. 479,368.
- "MOLDICIDE"; for chemicals (2) and for food substances (42). By Borax Consolidated, Ltd., 16 Eastcheap, London, E.C.3. 479,258/259. (Associated.)
- "BERNOS"; for medicinal chemicals (3). By Taylor, Gibsons, Ltd., 52 Stowell Street, Newcastle-on-Tyne. 468,202.
- "ACCURIN"; for rheumatism tablets (3). "BRONESIA"; for medicinal tablets (3). By E. J. Loosmore, 120 Glen-caglo Road, Streatham, S.W.16. 477,138/139.
- "IO-TONE"; for medicinal chemicals (3), and for perfumery, etc. (48). By Eueryl, Ltd., 5 Oakley Road, Shirley, Southampton. 477,335/336. (Associated.)
- "HEINOR"; for medicinal chemicals (3). By H. T. Morley, Ltd., 142 Love Lane, Stockport. 478,458.
- "ALEPOL"; for medicinal chemicals (3). By The Wellcome Foundation, Ltd., 67 Holborn Viaduct, London, E.C.1. 478,936.
- "ALLACTIS"; for medicinal chemicals (3). By Oppenheimer, Son & Co., Ltd., 179 Queen Victoria Street, London, E.C.4. 479,352. (Associated.)
- "JANTER"; for medicinal preparations (3). By Lomond Casson & Co., 45 Holborn Viaduct, London, E.C.1. 479,495.
- "RHINTS"; for tablets for indigestion, etc. (3). By S. Haywood, 36 Queensgate, Bolton. 479,245.
- "ECLIPSA"; for optical goods (8). By T. Hamblin, Ltd., 15 Wigmore Street, London, W.1. 479,345.
- "RED DIAMOND BRAND" across diamond shape bearing letters "B. B. & Co." ("B. B. & Co." disclaimed); for bandages, etc., and sanitary towels (11). By Burgoyne, Burdages & Co., Ltd., East Ham, London, E.6. 476,843. (Associated.)
- "LIQUISOL"; for all goods (47), and for cleaning preparations (50). By The Horton Manufacturing Co., Ltd., Ebury Road, Rickmansworth, Hertfordshire. 476,774/775. (Associated.)
- "NEOTIN"; for fabric-cleaning preparations (47). By A. Hoffmann, 10 Kohlgartenstrasse, Leipzig, C.1. 479,224.
- "RITA"; for shampoo powders (48). By Henrietta Stevens, 31 Savernake Road, Hampstead, N.W.3; G. F. Fortnum, 128 Raly Street, Moss Side, Manchester. and E. O. Lauderdale, 85 London Wall, E.C.2. 476,635.
- "GLANXARDO"; for toilet preparations (48). By Gertrude Morgan, 199 New King's Road, London, S.W.6. 478,676.

(From "The Trade-Marks Journal," May 25, 1927.)

- "SYNTHOS"; for chemicals (1). By Murphy & Son, Ltd., The Cedars, Sheen Lane, Mortlake, S.W.14. 478,556. (Associated.)
- "KODACOLOR"; for all goods (1) and (3). By Kodak, Ltd., Kingsway, London, W.C.2. 479,249/250. (Associated.)
- "TRUZONE"; for a chemical substance (1). By B. Laporte, Ltd., Kingsway, Luton, Beds. 479,635.
- "FLICKERS"; for veterinary preparations (2). By F. W. Thompson, 115 Winchester Road, Basingstoke. 478,664.
- "CLEN-DIS"; for disinfectant soaps (2). By H. Green & Son, Ltd., Vickers Street, Manchester. 479,773.
- "AICHEROL"; for all goods (2). By Aicherol G.m.b.H., Taunentzicnstrasse 14, Berlin, W.50. 479,794.

## Trade Notes

REUDEL BATH SALTRATES.—Saltrates, Ltd., Euston Buildings, George Street, London, N.W.1, offer new window display terms to chemists in connection with Reudal Bath Saltrates and Alkia Saltrates. These are given in detail in the company's advertisement in this number.

BLUMAUER-FRANK DRUG CO., Portland, Oregon, send us an interesting pamphlet describing the features of their business. This house is stated to be the largest wholesale drug concern in the Pacific North-West. Judging by the pictures and description the Blumauer-Frank Drug Co. is a huge concern.

DR. THILO'S SPECIALITIES.—The advertisement of Mr. W. Bredt, 41 Great Tower Street, London, E.C.3, is devoted to Dr. Thilo's special manufactures. These are ethyl chloride, ethyl chloride with eau de Cologne, Thyangol throat pastilles, chemically pure glucose solutions and redistilled water in ampoules.

SPARKLETS INSET.—An inset in colours of Sparklets, Ltd., Upper Edmonton, London, N.18, which is inserted in this issue, deals with special bonus offers for display of "C" syphons and sparklets. A notable point is that any syphons remaining unsold after six months from date of purchase will be credited on return.

SEX HORMONES.—Reed & Carnrick (British agents: Coates & Cooper, 41 Great Tower Street, London, E.C.3) are issuing to the medical profession a booklet dealing with the sex hormones. The medicaments referred to in this are Ovacoids and Testacoids, used in the treatment of dysfunction of the female and male sex glands respectively.

MALT EXTRACT.—The business of C. Tolkien & Co., manufacturers of malt extract and packers of chemists' specialities, Commercial Mills, Blackburn, has been reconstructed. A new company has been formed under the name of C. Tolkien & Co., Ltd., and in the advertisement in this issue the service offered is summed up as sterling quality, reasonable prices, quick despatch.

ANNUAL OUTINGS.—The offices and works of Wright, Layman & Umney, Ltd., 44-50 Southwark Street, London, S.E.1, will be closed on June 11 owing to the annual staff outing.—Allen & Hanburys, Ltd., inform us that their works will be closed on June 18, the date of the annual outing, when small urgent orders can be executed at 7 Vere Street, London, W.1.

BLONDEAU BUTTERMILK FACIAL SOAP.—Vinolia Co., Ltd., Bebington, Cheshire, have brought out a new toilet soap—Blondeau Buttermilk Facial Soap—which has several special features. It is white, nicely perfumed, and each cake is enclosed in a carton. Special net prices are offered for first orders, examples being 3 dozen 8s. 6d., 24 dozen 64s., the latter being sent in free cases, carriage paid.

AVENYL, a preparation of mercury dissolved in hydno-carpus oil and used in syphilis associated with leprosy by subcutaneous injection, has been prepared by the Wellcome Chemical Research Laboratories. Tests with the preparation have been carried out under the Indian Research Fund Association by Dr. Muir. A clinical report covering thirty cases leads to the conclusion that Avenyl is "a most safe and effective remedy in the treatment of leprosy when the Wasserman reaction is positive." Burroughs Wellcome & Co. supply Hypoloid Avenyl in 10 c.c. phials.

## Information Department

### INFORMATION WANTED

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated:

|                                 |                                 |
|---------------------------------|---------------------------------|
| S/16. Anchor brand beeswax      | B/255. Eusoff                   |
| D/245. Ducro Food               | F/275. Medicinal wafers         |
| B/255. Farlow's Mosquito Lotion | B/255. Odorette perfume         |
| M/16. Hammond's rubber trusses  | M/255. Perfume bricks           |
| B/255. Hancock's Nostril Powder | M/16. Ramsden's rubber eye cups |
|                                 | S/205. Solipol furniture polish |
|                                 | W/256. Zooglo beauty powder     |



## Observations and Reflections

By Xrayser III

### Mr. Herbert Skinner

is to be congratulated upon his election to the presidency of the Pharmaceutical Society, and the Society is equally to be congratulated upon securing his services as President. He has had a hard row to hoe during his long period of service as a member of the Council, and there did not seem much prospect a year or two ago of his consistently honest work for pharmacy ever securing such recognition as has now been accorded to it. But times change, and people change with them. How marked the change is in Mr. Skinner's case is indicated by the fact that he only secured the vice-presidency last year by the narrowest margin, while he has now been elected President with practical unanimity. I must also tender my congratulations to Mr. Moreton Parry, who has served as a councillor for what would appear to be a record number of years without special recognition. I note that he received the same number of votes as Mr. Skinner and was similarly distinguished by being accorded non-recognition by a die-hard objector. Presumably one of the blank papers in each case was that of the individual returned to high office, but the second blank paper must be regarded as a final protest by one who disapproves of the Council's choice in both instances. In Mr. Guthrie's case there was only one blank paper when he was re-elected as treasurer, and, as this was doubtless his own, it seems safe to assume that the exception taken to the elevation of Mr. Skinner and Mr. Parry did not operate universally.

### As Uncompounded Drugs

are to be exempted from the requirement that imported goods bearing a British name or trade-mark must also bear an indication of origin, I am in agreement with your prophecy (*C. & D.*, June 4, p. 681) that the Courts of law will have to decide sooner or later what, for the purposes of the Merchandise Marks Act, a drug is. This may prove less difficult than the Board of Trade appears to regard it, though there are undoubtedly many substances on the border-line between a drug and something else. We have foodstuffs, disinfectants, explosives, dyes, etc., all of which may be used on occasion as medicinal substances, so that it is not easy to draw a hard-and-fast line between the class "drugs" and the classes in which the other articles with alternative uses are largely or mainly included. Nevertheless, it would seem necessary for some such hard-and-fast line to be drawn by the High Court, and I should imagine the ultimate decision will be to regard the principal uses of substances in question as deciding into which class they must be put for the purposes of the Merchandise Marks Act. In any case, I question whether a definition for the purposes of that Act would be of material import in other directions.

### Not Much Choice

was left to the representatives of Pharmaceutical Committees who met to confer on the subject of drug-tariff terms (*C. & D.*, June 4, p. 674), and it is difficult to conceive of anyone thinking seriously that any decision could have been arrived at other than that which was actually recorded. If a substantial cut in chemists' payments had been approved, there would have been little doubt in my mind that the Ministry of Health would have made such a deduction as to make sure that the money available would go round with something to spare, and this margin would, of course, have been lost to us. By agreeing to the alternative offered by the Ministry our representatives at least make sure of securing all the cash available, and if adequate safeguards are provided, chemists in many districts may be appreciably better off than if the existing terms had been continued. All areas where less than 2s. 10½d. per head has been spent in a year should find the chemists receiving increased remuneration if the administration of the drug fund by the Retail Pharmacists' Union is conducted on satisfactory lines and the Ministry of Health helps in the enforcement of proper safeguards. Some restriction is needed in the

articles that may be supplied as medicines for insured persons, and I would recommend to the attention of everyone concerned the sound views on many points advanced by one of your correspondents (p. 701). All the additional safeguards proposed by the R.P.U. should be pressed on the attention of the Ministry of Health, as there is nothing unreasonable about any of them and every one is necessary to ensure successful working.

### The Development

of modern Brighton has been so well described in your pages by Mr. Cecil Owen as not to permit of much, if anything, being added thereto. But perhaps a few words of comment may be acceptable, because Brighton is the extant embodiment of a species of medical treatment which degenerated, or evolved, as the reader chooses, into a social relaxation. Towards the close of the seventeenth century much curiosity was felt by the physicians of the period as to the nature of the many medicinal springs. One of the chief of these was situated at Spa; it became highly popular among the medical profession consequent upon the descriptions of it written by Seip, Hoffman, Slare and Peter Shaw, the two latter depending upon the writings of Hoffman. The esteem in which the newly exploited mineral waters were held is shown by the fact that in 1731 a John Fiddes in Tavistock Street had established a dépôt for the sale of the bottled waters from the Poulson Spring (at Spa) as well as of the competing native waters of Scarborough, Bath and Bristol. By the middle of the eighteenth century the social amenities of some of these places were of so enterprising a character as to become more than national in their fame. Spa probably was the most advanced. I have before me a couple of volumes, in an English translation, published in 1764, entitled "New Amusements of the German Spa." It was written by Dr. Limbourg, of Montpellier. These volumes are highly entertaining, because they not only set out the history of the springs and the characters and virtues of the waters, but they also describe in an attractive fashion the beauties of the surrounding country and the "Coffee Houses, Balls, Assemblies and other Diversions," together with the "Beau Monde and the Diversity of the Beau Monde who resort to the Spa."

### Dr. Richard Russell's

Dissertation provided the ancestors of the Brightonians with an opportunity of competing with Bath, Epsom and Scarborough for the patronage of the "Beau Monde" of this country. It is amusing to notice how quickly the commercial instinct was quickened by the possibilities of exploiting sea water as a remedial agent. To the fifth edition of Russell's treatise (1769) was appended "An Account of the . . . remarkable Mineral Waters of Great Britain," by W. Owen, whose desire to benefit by Russell's advocacy of sea water is attested not only by his brochure being issued with the doctor's, but also by an advertisement in Dr. Limbourg's book in which he informs the public that "Sea Water, in its utmost Purity, arrives constantly fresh every week" at his establishment "between the Two Temple Gates, Fleet Street," where it could be obtained "for Ready Money only."

### Brighton,

sixty years later, in the early years of the nineteenth century, was associated with another spa proposition. The founder of a well-known Brighton firm, Dr. F. A. Struve, who had prepared artificial Marienbad and Carlsbad mineral waters and employed them at a pump room he had inaugurated at Dresden, transferred part of his activities to Brighton. There he established his "German Spa," at which, as at his other establishments at Dresden, Berlin and Leipzig, he manufactured his artificial mineral waters in as exact an imitation as possible of the natural ones used in the generally accepted "Spa" treatment. Struve, in conjunction with Swaine, took out a patent for machinery "for producing and preserving artificial mineral waters," of which the principal innovation was a device for measuring the carbon dioxide. Struve's seltzer water became extensively known as the "Brighton seltzer water."



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## PATENTS AND TRADE MARKS.

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## Editorial Articles

### The Beginnings of Science at Oxford

THE striking forecast of scientific progress given by Sir Oliver Lodge at Oxford on June 8 has again focused attention on the University of Oxford in its relation to science. The account given in our Special Issue of June 30, 1923, of scientific research and teaching at Oxford from the days of Roger Bacon attracted widespread interest, and assisted in dispelling the notion, still occasionally met with, that our senior university has fostered classical learning to the exclusion of other studies. A volume has more recently been published by the University Press, on behalf of the Oxford Historical Society, under the title "Early Science in Oxford"; and those of our readers who were attracted by the outline of the subject that we gave in 1923 will find it worth while to examine this full and scholarly survey, the author of



which is Mr. R. T. Gunther, science tutor, librarian and research fellow of Magdalen College. On the first page of this sumptuously illustrated work Mr. Gunther quotes the dictum of Roger Bacon (who, it may be remembered, taught in Oxford in the thirteenth century): "Sine experientia nihil sufficienter sciri potest"—an utterance which, having regard to the conditions of the age in which it was written, clearly indicates his greatness. After a brief account of Bacon, the author pays pharmacy the compliment—which, after all, is its due—of reference to "the predecessors of the vendors of materia medica from whom in after years the early experimentalists derived some of their most precious chemicals." A diagram on page 4 shows the space between All Saints' Church and St. Mary's Church in "the High" as occupied by the "apothecaria" and "spiceria." The author remarks: "Wood, from whom we derive our information, refutes the claim of one Johannes Falcandus of Luoca (c. 1357) and of London to be the first apothecary in England by finding that John le Spicer mentions a certain seld situated in All Saints' Parish in *ypothecaria* in 1332." Anthony Wood, however, great as is our indebtedness to him, needs the comment that transcripts of documents given in H. T. Riley's "Memorials of London" are conclusive evidence that apothecaries existed in the Metropolis considerably earlier—for example, in 1304. The illustrations of pharmacy pots facing page 6 include some inscribed with the name of the college from which they came—a detail that will interest collectors in particular. It is suggested by a friend of the author that the older decorated examples may have been manufactured at Bristol. As is natural, the connection of Robert Boyle with Oxford yields several facts that will be new to the majority of readers. "By June 1654," we are told, "he was settled in Crosse's rooms in the High Street on the west side of University College, and there fitted up the laboratory in which he worked until 1668. Crosse's house, formerly Deep Hall, was where the Shelley Memorial now stands; . . . the Oxford experimentalists and their friends gravitated to Boyle's Lodgings and to Arthur Tillyard's house, now No. 90 High Street, next door but one." Wood is drawn upon again at this stage in the narrative: "In this yeare, 1655, Arth. Tillyard, apothecary and great royallist, sold coffey publicly in his house against [= opposite] All Soules Coll." Boyle introduced into Oxford the first regular teacher of chemistry—Peter Sthael, who came from Strasbourg, and was, according to Wood, "a great hater of women, and a very useful man." In a chapter on the teaching of science at Oxford in the eighteenth century, Mr. Gunther remarks that, although "the various branches of natural science had by now become fairly well defined and their various aims fairly well understood . . . chemistry alone of the great sciences was left without a professor, owing to the failure of the well-intentioned, though insufficient and unsupplemented endowment of Ashmole." It would be unfair to attempt to summarise the captivating details given of the reflection of scientific progress in the lectures delivered in Oxford from the time of Freind (1704) onwards. Rather more than a page, for instance, is devoted to a quotation from Uffenbach, an "unappreciative and somewhat inaccurate German, who found much to condemn in the England of 1710"; yet this traveller's churlish criticisms on the state of affairs in the Ashmolean laboratory cannot well be spared. We may select the names of three other lecturers at random—Martin Wall, Thomas Beddoes and Robert Bourne—as another illustration of the bringing to light of little-known facts in the history of chemistry. It remains to glance at other sciences. One of the most

delightful incidents related occurred during Faraday's visit in connection with the meeting of the British Association in the city in 1832. He was requested to repeat the experiment of obtaining a spark from a magnet, and for this purpose he used the large natural magnet in the Ashmolean Museum. One outcome of his demonstrations is given in the words of the late Professor Tyndall:—

"Whilst he was repeating them, a dignitary of the University entered the room, and addressing himself to Professor Daniell, who was standing near Faraday, inquired what was going on. The Professor explained to him as popularly as possible the striking result of Faraday's great discovery. The Dean listened with attention and looked earnestly at the brilliant spark, but a moment after he assumed a serious countenance and shook his head: 'I am sorry for it,' said he, as he walked away; in the middle of the room he stopped for a moment and repeated: 'I am sorry for it'; then, walking towards the door, when the handle was in his hand he turned round and said: 'Indeed, I am sorry for it; it is putting new arms into the hands of the incendiary.'"

It is only fair to the Dean to explain that just previously several cases of incendiarism had been reported in the Press. The descriptions, brief for the most part, of early apparatus given in Mr. Gunther's work are of great interest, and some of the specimens illustrated have considerable artistic charm. A monograph on a bronze bushel measure informs us that in 1670 a new set of standards was provided; and the Vice-Chancellor issued a citation requiring all persons using weights or measures to bring them before him or before the clerks of the market, "there to be examined and reviewed with the publick standard"—an anticipation of a provision in the Weights and Measures Act of 1878. One of the most curious instruments illustrated is Coventry's "hydrostatic counterfeit coin detector," dating from about 1760, and for many years at All Souls' College; the elaborate directions for use explain the method of measuring the degree of adulteration in gold or silver coins. Apparatus now on view at the Old Ashmolean Museum is also described with care; and the arrangement of so heterogeneous a mass of detail into an orderly sequence must have been dictated by intense absorption in the subject so lucidly set forth.

### Activity in Seeds and Oils

FOLLOWING the rather weaker conditions noted among the chief seeds and oils in March, especially in the second half of the month, which resulted in a considerable setback in values (linseed oil, for example, declining in the neighbourhood of £30 per ton for spot delivery as a result of a poor home trade demand and heavy supplies of seed near at hand), there ensued a gradual all-round improvement. Within the past month there has been distinct evidence of increased trade activity at sharply advancing prices. The rise in linseed oil recently was particularly pronounced, the spot price touching £34 15s. per ton. There was also a renewal of speculative interest, which accelerated covering operations on a considerable scale on both Continental and home account. Optimistic prospects in the oilseed crushing industry continue, with the promise of ample activity under better and more settled labour conditions, as already suggested in our issue of February 19 (pp. 227-8). Increased competitive buying of linseed by Continental crushers has greatly facilitated the rapid export movement from the River Plate so far this year, although the shipments from the main growing countries have shown some falling-off since mid-May, and the quantities afloat have been reduced, although they are still large. According to figures covering this year to May 20, the total shipments from the River Plate amounted to about 938,500 tons for all



destinations, thus indicating an excess of about 76,000 tons compared with the corresponding period of last year. Of the total, nearly 700,000 tons were for home and Continental ports combined, while the balance of nearly a quarter of a million tons went to North American ports. The important part played by the United States for many years in absorbing the Argentine crop is again clearly indicated in the figures for North America, which represent fully one-third of the whole of the European takings. The total world shipments, including, of course, India, Russia and the Baltic States as reported to the date mentioned above, amounted to close on 1,000,000 tons, indicating an excess of about 60,000 tons compared with a year previous. Estimates as regards the absorption of this season's surplus from all sources are considered satisfactory, the unshipped balance being rather less than that of a year ago, while the European crushing industry should be able to use even larger quantities this season, and British mills are now deriving advantage from the more active state of the home manufacturing trades in contrast to the serious handicap of last year's coal crisis. At the advanced price recorded recently, up to about £18 12s. 6d. per ton for Calcutta linseed and to fully £17 per ton for forward shipment of the Argentine product, the quotations denoted an appreciation of about 15s. to 20s. per ton over the highest level attained in February 1927. Adverse weather accounts have been received from the River Plate regarding prospects of the next crop, while a decrease was reported in the sowings for the American crop. These reports have naturally helped in strengthening the position, and Argentine shippers have adopted a reserved attitude. We give below the official returns of home imports for 1925 and 1926, and for the first four months of this year:—

| U.K. linseed imports |  | 1925    | 1926    | 1927<br>(Jan.-Apl.) |
|----------------------|--|---------|---------|---------------------|
|                      |  | Tons    | Tons    | Tons                |
| From Russia .. ..    |  | 26,747  | 36,713  | 8,130               |
| „ Argentine Republic |  | 151,049 | 269,865 | 97,031              |
| „ British East India |  | 146,726 | 41,069  | 16,026              |
| „ Other countries .. |  | 15,954  | 13,196  | 3,626               |
| Totals .. ..         |  | 340,476 | 360,843 | 124,813             |

The total given for the four months—124,813 tons—is proportionately somewhat more than for the previous two years, and compares with 119,307 tons for the same period last year, while the setback in the receipts from Russia for four months of over 10,000 tons, together with the deficit shown in the item against “other countries” of about 6,000 tons, were more than made up by the larger quantities received from the River Plate and British India. Home crushers' needs for the balance of the year can hardly be less than about 250,000 tons if they are to be adequately covered and the mills enabled to retain a fair measure of export business for their oil-product, which for the first four months of the year amounted to 6,550 tons, against 9,573 tons for the same period last year. It is satisfactory to note that our imports of linseed oil so far this year have been lessening, the total being only 4,881 tons, compared with 6,057 tons last year, so that this country has been exporting on balance, which would indicate that Continental competition has relaxed in some degree. The fact deserves mention also that there was a reaction in prices late last month in this market, chiefly due to the disclosure of financial difficulties, which caused special settlement prices to be fixed for all open contracts at £34 for May to August and £34 12s. 6d. for the last four months of the year. For this reason, therefore, the position may be expected to remain unsettled for a time, and the difficulties in question may possibly have a certain bearing on the Hull market. Our supply of cottonseed from Egypt this year

has considerably increased, amounting to 152,425 tons for January to April, thus to a large extent balancing the decrease from British India of about 40,000 tons to only 9,409 tons and from other countries of 9,000 tons to 34,813 tons. The total from all sources was 196,647 tons, against 216,253 tons for the same period last year. The price of Egyptian black seed, which was rather low early in the year, has improved to over £10 per ton, and Egyptian crude cotton oil rose to fully £36, which is an appreciation of £4 10s. per ton from the figure current at last year's close. The Egyptian crop movement has now been almost completed for the season. American crushers have made rapid headway with the last “record” crop, but the outlook as regards next season's supplies has been considerably modified by the Mississippi floods. The cotton yield may be curtailed by roughly two million bales, and this would mean a deficit in cottonseed of about 600,000 tons.

## Spanish Imports of Narcotics

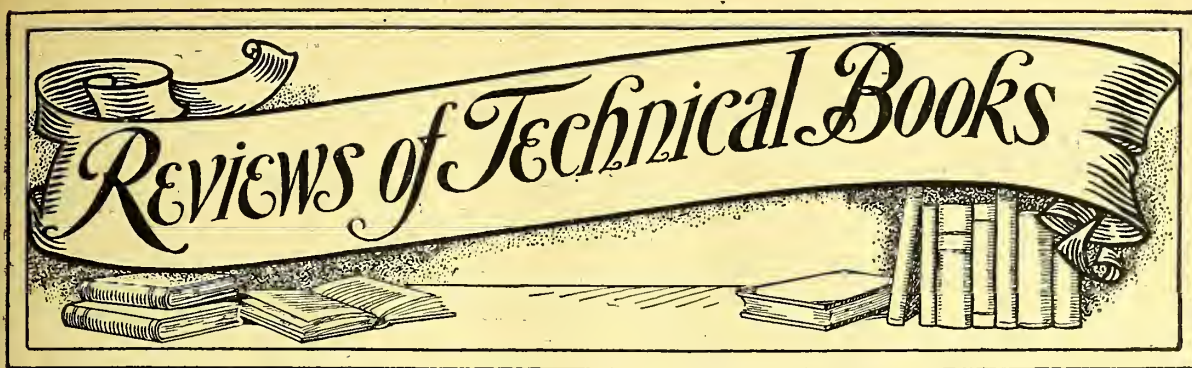
WITH the object of establishing the average annual consumption in Spain of narcotic drugs coming within the provisions of the Geneva Opium Convention, the Spanish Government has published a detailed list, prepared by the Chief of the Pharmaceutical Department in the Directorate-General of Health, showing the imports into Spain of the principal substances classed as “dangerous drugs” during the past three years. These figures, given below, afford a valuable insight into the requirements of narcotics for a population of 21,763 000:—

|                                   | 1924    | 1925    | 1926      |
|-----------------------------------|---------|---------|-----------|
|                                   | Grams   | Grams   | Grams     |
| Coca leaves .. ..                 | 300,000 | 289,000 | 1,241,020 |
| Cocaine .. ..                     | 15,000  | 1,366   | 1,000     |
| Cocaine hydrochloride ..          | 41,450  | 271,500 | 336,410   |
| Cocaine nitrate .. ..             | —       | —       | 3,000     |
| Codeine .. ..                     | 73,400  | 168,320 | 203,845   |
| Codeine hydrobromide ..           | —       | —       | 1,500     |
| Codeine hydrochloride ..          | —       | 2,835   | 3,500     |
| Codeine iodide .. ..              | 1,000   | 3,000   | —         |
| Codeine phosphate .. ..           | 17,100  | 73,100  | 108,150   |
| Codeine sulphate .. ..            | 250     | —       | 500       |
| Diacetylmorphine .. ..            | 7,545   | 6,000   | 5,550     |
| Diacetylmorphine hydrochloride .. | 36,903  | 99,500  | 45,775    |
| Diethylmorphine hydrochloride ..  | 20,005  | 55,844  | 69,300    |
| Ethylmorphine hydrochloride ..    | —       | 46,000  | 17,500    |
| Extract of coca .. ..             | 19,000  | 84,000  | 61,600    |
| Extract of Indian hemp ..         | 510     | 2,150   | 34,400    |
| Extract of opium .. ..            | 32,010  | 121,250 | 132,275   |
| Laudanum .. ..                    | 4,000   | 3,000   | 20,000    |
| Morphine .. ..                    | 53,018  | 51,320  | 21,115    |
| Morphine acetate .. ..            | 26,750  | 21,000  | 25,600    |
| Morphine hydrochloride ..         | 208,113 | 345,177 | 487,092   |
| Morphine sulphate .. ..           | 32,320  | 3,643   | 30,350    |
| Narceine .. ..                    | —       | 1,100   | 1,700     |
| Narceine hydrochloride ..         | —       | —       | 1,500     |
| Opium .. ..                       | 103,000 | 839,212 | 855,512   |
| Papaverine .. ..                  | 10,500  | 26,110  | 22,000    |
| Papaverine hydrochloride          | 1,100   | 8,000   | 22,250    |

CLIFTON COLLEGE.—On June 3 the Prince of Wales opened a newly erected science school at Clifton College. The teaching of chemistry at the school is associated with the names of two well-known pharmacists who have passed away in recent times, Sir William Tilden and Mr. W. A. Shenstone, Ph.C.

TURKISH MORPHINE.—Acting on the optimistic assurances made by a Constantinople chemist, a Japanese financier a year ago laid down the necessary plant for the manufacture of morphine and other alkaloids from opium. However, the products of this first Turkish alkaloid factory were unable to compete either as regards quality or price with the alkaloids imported from abroad, and the Japanese promoter has now withdrawn his support from this undertaking after incurring heavy losses.





*Volumetric Analysis for Students of Pharmaceutical and General Chemistry.* By Charles H. Hampshire. 4th edition.  $7\frac{1}{2}$  by  $4\frac{1}{2}$  in. Pp. 130. 7s. 6d. London: J. & A. Churchill, 7 Great Marlborough Street, W.1.

Since the publication of the first edition of this booklet in 1912, its chapters have been increased from eleven to thirteen and its pages from 104 to 130, while its usefulness to pharmaceutical students has also been increased by the inclusion of instructions for the examination by volumetric methods of various substances mentioned in the Pharmacopœia, but omitted from the first edition. While the booklet scarcely aims at supplying information respecting apparatus and manipulation with sufficient detail for self-instruction by beginners, it is quite suitable for the use of students working under the guidance of a competent instructor, which is evidently the chief purpose for which it is intended. A few illustrations of the important pieces of apparatus employed in volumetric analysis, with particulars as to their use, would simplify the students' work at the outset. We are inclined to question the judgment of the author in excluding any reference to hydrogen ion concentration, in view of the widespread connections in which this subject is now becoming increasingly important. Further, we would suggest that in any future edition the distinction now drawn between the strength of an acid or an alkali and the concentration of its solution should be clearly pointed out and its recognition insisted upon.

*A Garden of Herbs.* By Eleanor Sinclair Rohde. Revised and enlarged edition.  $8\frac{1}{2}$  in. by  $5\frac{1}{2}$  in. Pp. xvi+300 (8 illustrations). 10s. 6d. London: Herbert Jenkins, Ltd., 3 York Street, St. James's, S.W.1.

This new edition of Miss Rohde's book provides an opportunity for bringing it under the notice of those who have not hitherto made its acquaintance. It is not a herbal in the ordinary sense of the word, but it is an attractive summary of the uses of English herbs as previously set forth in the volumes of Parkinson, Lyte, Gerard, Langham, Evelyn, and others, as well as a collection of recipes to be found in the chief recipe books of the sixteenth, seventeenth and eighteenth centuries, which latter were an indispensable feature of the still-room of every self-respecting gentlewoman. The enthusiasm of the author is not altogether directed to utilitarian ends. The book conveys most successfully the quaint teachings of the old herbalists, and arouses in the reader the imaginative reactions which should be produced by the presentation of their beliefs in the mystic qualities of the herbs. Whether the day will arrive speedily when herbs will come into their own again, as Miss Rohde anticipates, and displace the patent medicines which have usurped their place, may be doubted. But that her readers will find their interest in them quickened by her instructive and entertaining volume we have no doubt. As a specimen of the monographs on each herb we may take fennel as an instance. There are four quotations from the poets, a short account of the history of it, when and how it should be sown and cultivated, and, finally, recipes for "to make one

slender," "a sallet of Fennel," "to make white Fennel," "Fennel and Gooseberry Sauce," "to pickle Fennel," and "Fennel Tea." The illustrations are all taken from old works, and are very well reproduced. The volume is excellently printed, and so tastefully bound that it makes an acceptable gift book.

*The Magic of Herbs.* By Mrs. C. F. Leyel. 8 in. by  $5\frac{1}{2}$  in. Pp. 320. 10s. 6d. London: Jonathan Cape, Ltd., 30 Bedford Square, W.C.1.

The author says that "searching through the literature of herbs" she could "find no history of the use of herbs in medicine and pharmacy," and adds: "facts bearing on the subject are scattered through hundreds of books in different languages. This book, therefore, is an attempt to bring together in one volume for the general reader the information I have collected." Consideration of this exordium will preserve the reader from disappointment as to its contents. It furnishes an agreeable collection of curious items of information dealing with the lore, authentic and imaginary, of herbs and medicines. The titles of the sixteen chapters are:—Herbs in Medicine before the birth of Christ; Arabian Medicine under the influence of Mahomet—the Pharmacy of the Arabian Nights; European Medicine in the Middle Ages—The Mysterious Physicians of Myddrai (*sic*); The great Herbals before and after the introduction of Printing; The Occult Herbalists; What is Magic? Herbs in Magical Rites; Love Powders, Potions and Philtres; Poisons and Narcotics; Recipes of famous Cosmetics; The history of the Distillation of Aromatic Oils and Waters; Perfumes and Perfumers; English Lavender, Rosemary and Mint; Miraculous and Magical Scents; Quacks and their Herbal Nostrums; The history of some remedies in our Pharmacopœia—Two-thousand-years-old Herbal formulæ; Apothecaries: their shops and gardens. There is a bibliography of about seven pages, but we cannot help wondering why rather more considerable obligations should not have been expressed in regard to several works. It is true that Wootton's "Chronicles of Pharmacy" is mentioned several times; but it seems to us that something more generous was deserved. The proof-reading has been indifferently carried out; the mis-spellings of proper names are irritating, and the presentation of Latin formulas is not creditable. In the chapter on the Arabian Nights' pharmacy there are some Arabian recipes which are not entitled to the antique air which has been cast over them; indeed, one of them contains proof spirit. There are other matters which compel our attention: Robert Boyle was not a thirteenth-century alchemist; a glucoside is not a sugar; the discovery that the basis of Gerard's Herbal was the work of Dr. Priest is as old as Thomas Johnson's edition, published in 1633. The book is, however, well printed and very entertaining.

*Harmsworth's Home Doctor and Encyclopædia of Good Health.*  $9\frac{1}{2}$  in. by  $6\frac{1}{2}$  in. Six volumes. Pp. 4,784. 5,000 illustrations. Cloth binding £4 5s., or monthly subscription terms £4 10s. London: The Educational Book Co., Ltd., 17 New Bridge Street, E.C.4.

Originally issued in parts, the "Home Doctor" is now published complete in six volumes. The work begins with general articles by Sir Clifford Allbutt on "The



## Reviews of Technical Books

Importance of Being Healthy," Dr. C. W. Saleeby on "The Healing Art Throughout the Ages," and Sir D'Arcy Power on "The Classical Ideal of Physical Fitness." Then follows in alphabetical order monographs dealing with diseases and their treatment, health resorts, drugs and chemicals, anatomy, physiology, nursing, accidents and first aid, the monographs being adjusted according to the importance of the subjects. Collective articles such as those on fevers, artificial limbs, foods, eyes, teeth, boots, housing, have considerable space devoted to them, and in every case the articles are copiously illustrated. The pictures are of exceptional interest, some being in colours, others folding plates in photogravure, and many half-tone illustrations in the text. When describing even simple facts, illustrations are given, as the reader is not assumed to possess medical knowledge. Much ingenuity has been exercised in gathering together the pictures; they are always appropriate to the subject and seem in most cases to have been specially taken for the work. Turning up subjects at random, we came across monographs on drugs (with two pages in colour of medicinal plants), chemist, dispensing, drug habits, Dangerous Drugs Acts, poison laws, and Pharmacopœias, which are technically correct in the statements made, showing, as stated in the commencement, that a pharmacist has checked these as well as the pharmacy of the prescriptions. There is a section on homœopathy, which runs to about 70 pages, and another on veterinary practice, occupying 260 pages. As we have stated, the monographs are in alphabetical order, but in addition there is a cleverly compiled index, which enables the reader to turn up any subject in a few seconds. The book is well suited for the use of chemists, who often need a larger work for reference purposes. Now that Quain's "Dictionary of Medicine," a favourite with the past generation of pharmacists, is no longer obtainable, we know of no more suitable book than this. The immense labour that must have been entailed in bringing together such a great variety of subjects has produced a work which is unique.

*The Essential Oils, Their Chemistry and Technology.*  
By Horace Finnmore, B.Sc., F.I.C. 10½ in. by 6 in. Pp. 880. 70s. London: Ernest Benn, Ltd., 8 Bouverie Street, E.C.4.

This handsome work by Mr. Finnmore, who is also a pharmaceutical chemist, follows on "The Chemistry of Drugs," by Mr. Norman Evers, which we reviewed a year ago (*C. & D.*, I, 1926, p. 13), and brings together, in the words of the publisher's announcement, "a great mass of data." We can, however, hardly subscribe to the sweeping qualification "for the first time," for it is generally agreed that Mr. E. J. Parry's work on "The Chemistry of Essential Oils," of which new editions were issued in 1921-22, constitutes the standard English work on the essential oils. The size of Mr. Finnmore's work is emphasised by the large-faced type used throughout the book, and the amount of white space which results from the rule of starting each natural order at the top of a page. Thus, on p. 504, only one oil is quoted, oil of *Leeria paniculosa*; on p. 505 oil of *Ceanothus velutinus*, N.O. Rhamnaceæ; and on p. 506 oil of grape juice, N.O. Vitaceæ. All three could comfortably be accommodated on one page. Similar lavish use of space is made throughout, and no doubt has added to the cost. The system, however, is not without its advantages, as the work is easy to consult and read. The author has followed the biological classification of Engler and Gilg's *Syllabus der Pflanzenfamilien*, 8th edition. Consequently the large index is an important part of the work. The author throughout has also collated his facts with thoroughness, but there are occasional monographs which do not add much to the reader's knowledge—e.g., Oregon *Walsam* remains obscure, such phrases as "it is thought that . . .," "it is stated that," being rather loose expressions in a scientific work which otherwise generally acknowledges the source of the statements rather fully. In regard to references it is of interest to note that the first mention of the variety of Spanish thyme used in the production of thymol—containing thyme oil was made in THE

CHEMIST AND DRUGGIST, 1920, pp. 790, 914 and 999. The author gives as his reference a later article which appeared subsequently in another publication. Some of the references could have been supplemented by reports of more recent work, and there are several examples of oils omitted or briefly referred to which, though obviously of little commercial value, should have appeared in a work of so ambitious a character. Examples of such omissions are oil of *Seseli Harveyanum*, *Eriostemon crowei*, two Australian oils; *Andropozon odoratus*, *A. intermedius*, and *Andropogon procerus*, grass oils described by Van Eerde in 1924; *Thuja gigantea*, *T. occidentalis* and *T. orientalis*; and *Juniperus excelsa*. A considerable amount of recent work on *Leptospermum scoparium* is ignored, only a brief reference to a communication of 1902 being made. There are several others, but the literature of essential oils grows rapidly, and some allowance must be made for the time elapsed between closing the book for press and the date of publication. With regard to individual oils, there are some controversial points raised. Under French lavender oil the opening paragraph (p. 712) refers to "the chief constituent . . . linalol, which with its acetic ester is responsible for an important part of the odour of the oil"; while (p. 717) in speaking of Spanish lavender oil appear the words: "In this oil the linalyl acetate so characteristic of the French oil . . ." These references are dated 1892 and 1897 respectively. The responsibility of linalyl acetate for the lavender odour has for some time been seriously questioned, and as for Spanish lavender, it is doubtful if *Lavandula vera* is to be found at all in Spain. Under citronella oil a reminder of the gross adulteration of this article with alcohol a few years ago, which caused the trade much trouble and expense, would have been useful, the only reference to alcohol as an adulterant being a report made in 1903. A citronella oil of the Java type, emanating from Central America and shipped from Guatemala, which has appeared for a few years on the London market in commercial quantities, seems not to have been investigated or mentioned. Under American peppermint oil appear the words: "The annual product being 250,000 lb." If this means annual production it is decidedly an underestimate. The average crop is nearer 400,000 to 500,000 lb., and the recent crop, 1926-27, has been estimated at no less than 750,000 lb. In regard to Italian peppermint, the latest reference given is 1920, whereas since then very great progress has been made, acreage has been increased, and the output greatly enlarged. The anisic acid test referred to (p. 190) for vanilla has since been supplemented by S. B. Gnadinger, who suggested the application of both phloroglucinol and piperonal tests to distinguish Tahiti beans and vanillons from other varieties. Niaouli oil, which is said to be obtained from *Melaleuca viridiflora*, is, according to a recent paper by Dr. A. Guillaumin (French National Museum of Natural History) obtained from *M. leucadendron*, which is familiar as one of the sources of cajuput oil. A useful feature of the work, however, is the statistical information given in regard to trade and raw materials, which is unusual in books of this description, the monographs on such articles as cardamoms and cloves, lavender and sandalwood, to mention only a few, being of particular interest. The chemical constants and graphic formulas have been carefully prepared, and a high standard of accuracy throughout has been achieved. Mr. Finnmore's book is undoubtedly a valuable contribution to the literature on so important a series of raw materials as the essential oils, but its high price will probably limit its appeal.

Gadd, H. Wippell, *A Synopsis of the British Pharmacopœia*, 1911, 11th edition, 4½ by 2½ in. Pp. 205. 2s. [A useful little book for the pocket, which has been very popular with students since it was first published in 1914. In addition to the tabular information regarding the pharmacopœia, which occupies the bulk of the book, there are details regarding sale of poisons, weights and measures, thermometer scales, elements, official alcohols, indicators and tests for chemicals.]



## Corner for Students

Conducted by Leonard Dobbin, Ph.D.

Communications should be addressed "Corner for Students, 'The Chemist & Druggist,' 42 Cannon Street, London, E.C.4."

### Report on the May Analytical Exercise

THE powder distributed to students on May 10 contained five parts by weight of potassium sulphate, four parts of potassium hydrogen tartrate and one part of potassium hydrogen carbonate. The calculated composition of such a mixture is:—

|                                                  |     |     |     |     |       |
|--------------------------------------------------|-----|-----|-----|-----|-------|
| K ...                                            | ... | ... | ... | ... | 34.7  |
| SO <sub>4</sub> ...                              | ... | ... | ... | ... | 27.5  |
| C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> ... | ... | ... | ... | ... | 31.5  |
| CO <sub>3</sub> ...                              | ... | ... | ... | ... | 6.0   |
| H ...                                            | ... | ... | ... | ... | 0.3   |
|                                                  |     |     |     |     | 100.0 |

There was also present, as impurity in the potassium hydrogen tartrate, a considerable trace of calcium. The tests for iron and for chloride indicated the presence of no more than barely recognisable traces.

Samples of the powder were sent out to twenty-two students, and twelve reports of analyses were returned for examination. Potassium and the sulphuric acid radical were reported in every case, and the tartaric acid radical was missed in one instance only, but no fewer than seven students failed to recognise the presence of the carbonate, while only three detected the calcium present as impurity.

This exercise resembled some others recently set, in so far that it presented a mixture of acidic radicals with little complication in respect to metallic radicals—the detection of the trace of calcium being the only difficulty in this connection. The failures in detecting this calcium were in most cases due, no doubt, to its not being precipitated as carbonate on the addition of ammonium carbonate as group reagent, and to the almost uniform omission to add ammonium oxalate and boil before proceeding to test for magnesium by means of sodium or ammonium phosphate. Since the quantity of calcium was small and the solutions to which ammonium carbonate was added were probably dilute and contained a considerable quantity of other ammonium salts, the precipitation of calcium carbonate was scarcely to be expected in every instance; nevertheless, one or two students obtained a precipitate at this stage and recognised that it gave reactions for calcium. A distinct precipitate of calcium oxalate could be obtained when a drop of solution of ammonium oxalate was added to the solution containing ammonium carbonate and the whole was boiled or permitted to stand for some time. When a small quantity of the original substance was dissolved in dilute acetic acid and ammonium oxalate was added, an almost immediate turbidity, due to calcium oxalate, was produced. The precipitate supposed by some students to indicate that magnesium was present was most likely due to the calcium which had remained unprecipitated as carbonate.

The most striking feature in connection with the reports received was the large proportion of failures in the detection of the carbonic acid radical. When the powder was mixed with cold water, the very slight evolution of carbon dioxide which occurred (due to the interaction of the bicarbonate with the bitartrate) was almost certain to be overlooked except by close observers—who were not entirely absent from our correspondents, although their numbers were few—but when dilute hydrochloric acid was added, the evolution of gas bubbles was greatly increased and, although by no means highly conspicuous, it was too plainly visible to be overlooked altogether by an alert observer. It is to be expected that the presence of the carbonic acid radical should be readily detected in a mixture in which it is present to the extent of six per cent.

There was no difficulty about recognising the presence of the tartrate, but it is noteworthy that many of those who detected that constituent omitted to test for a citrate, which might also have been present. In their behaviour when heated alone, and with concentrated sul-

phuric acid, tartrates and citrates resemble each other pretty closely, the tartrates as a rule undergoing decomposition a little more easily and rapidly than the citrates, but when both are present in the same mixture the slower decomposition of a citrate would be obscured by the more rapid decomposition of the tartrate, and only separate tests for each could be relied upon to furnish evidence regarding one or both. It is injudicious to assume that reactions which may be accounted for by some constituent that has been detected are due to it alone, when there are other possible constituents that might afford closely kindred reactions and to leave these other possibilities unexamined. Several students proved citrate to be absent, but the whole treatment of the analysis with respect to tartrate, citrate and oxalate left, in most cases, a good deal to be desired.

### PRIZES

The first prize for the best analysis has been awarded to:—

THOMAS GARNETT, 4 Burns Road, Fleetwood.

The second prize has been awarded to:—

CHARLES H. ROBINSON, 1 Windsor Place, Fleetwood.

*First Prize.*—Any scientific book that is published at a price not greatly exceeding fifteen shillings may be taken as a first prize.

*Second Prize.*—Any scientific book which is sold for about seven shillings and sixpence may be taken as a second prize.

The students to whom prizes are awarded are requested to write at once to the publisher, naming the book or books they select.

### MARKS AWARDED FOR ANALYSES

|                            |     |            |     |     |    |
|----------------------------|-----|------------|-----|-----|----|
| T. Garnett (1st Prize)     | 91  | F. E. W.   | ... | ... | 73 |
| C. H. Robinson (2nd Prize) | 89  | Hexamine   | ... | ... | 70 |
| Serer                      | ... | Sedohr     | ... | ... | 70 |
| Scotia                     | ... | James Ward | ... | ... | 68 |
| Temporibus                 | ... | Trafalgar  | ... | ... | 67 |
| East Coast                 | ... | Mispickels | ... | ... | 48 |
|                            | 75  |            |     |     |    |

### TO CORRESPONDENTS

T. GARNETT and C. H. ROBINSON.—The addition of ammonium hydrosulphide to an acid solution instead of passing hydrogen sulphide is, in many cases, not without distinct disadvantages, which may include the precipitation of sulphur and the presence in the copper and arsenic group sulphides of the greater part of any cobalt or nickel that may be present. You should not have failed to detect the calcium present as impurity, and the absence of ammonium compounds and of the radical of citric acid should have been proved.

SERER.—The reactions you report which led you to return lead as a constituent were not due to any ingredient in the powder as sent out, and must have been caused by some acquired impurity. Magnesium was not present. Look up the correct formulas for mercuric sulphate and potassium permanganate.

SCOTIA.—Read the reply immediately preceding. Note that carbon monoxide is not evolved on heating a tartrate with dilute sulphuric acid. Your report seems to indicate collaboration in the carrying out of the analysis.

TEMPORIBUS.—We were unable to confirm the presence, in quantity, of the iron which you report, only the faintest trace being revealed by the usual delicate tests. Probably the iron was introduced from the hydrogen sulphide apparatus. The citric acid radical should have been tested for.

EAST COAST.—You may obtain some useful experience by practising with the mercuric sulphate and potassium permanganate test, employing solutions containing tartrate only, citrate only, and tartrate and citrate mixed in varying proportions.

F. E. W.—Having proved the presence of a tartrate, you should not have overlooked the possible presence



of a citrate also. Your formulæ for ferric chloride and ferrous sulphate require revision.

**HEXAMINE.**—The "fragrant" odour which you supposed to indicate the presence of an acetate could only be that of alcohol, since ethyl acetate was not evolved in your test.

**SEDOHR.**—The tests for an oxalate which you describe appear to have been quite in order, yet the conclusion at which you arrived was incorrect. Probably the precipitate you supposed to be calcium oxalate was simply calcium sulphate.

**JAMES WARD.**—Solution of calcium sulphate could not give a precipitate in a solution of the powder acidified with acetic acid.

**TRAFALGAR.**—You omitted to report testing for a number of acidic radicals which might have been present, and your report of zinc as a constituent must have been founded upon some mistake.

**MISPICKELS.**—Make yourself thoroughly familiar with the various special tests for tartrates and citrates by practising with known substances alone and in admixture with salts containing other acidic radicals, and both in moderately concentrated and in dilute solutions.

\* \* \* The analytical competitions in this column are now discontinued until October.

## Westminster Wisdom

Notes on Parliamentary Matters

### WHITSUNTIDE ADJOURNMENT

The House of Commons adjourned on June 3 until June 13 for Whitsuntide.

### NATIONAL HEALTH INSURANCE STATISTICS

Replies to questions in the House of Commons on June 2 brought out the following statistics of the number of insured persons at the end of the years mentioned :—

| <i>England and Wales</i> |     |           |  |           |
|--------------------------|-----|-----------|--|-----------|
|                          |     | 1926      |  | 1925      |
| Males                    | ... | 9,857,000 |  | 9,605,000 |
| Females                  | ... | 4,658,000 |  | 4,590,000 |
| <i>Scotland</i>          |     |           |  |           |
|                          |     | 1926      |  | 1925      |
| Males                    | ... | 1,144,000 |  | 1,116,000 |
| Females                  | ... | 571,000   |  | 570,000   |

### PRICE FIXING ASSOCIATIONS

Mr. R. Morrison asked the President of the Board of Trade on June 1 whether his attention has been called to a recent injunction granted in the Chancery Division restraining a private trader from selling tablets of soap at 5d. instead of an agreed price of 6d.; and whether he proposes to take legislative action to restore freedom to retail traders from the operations of price-fixing associations?

Sir B. Chadwick: I understand that the case to which the hon. member probably refers was heard only on Thursday and Friday last, and I have not seen the report as yet. As regards the second part of the question, I would refer the hon. member to the answer given by the President of the Board of Trade to the hon. member for King's Norton on March 8, a copy of which I am sending him.

Mr. Morrison: Does the hon. gentleman not think it about time that the Government, in their desire to retain freedom in this country, should take some action against an organisation that is forcing retailers to sell articles at a higher price than the retailers desire to sell them?

Mr. Beckett: Is the hon. gentleman aware that the custom complained of in this question is a very general custom?

Sir B. Chadwick: I understand the contract that was broken was a very usual trading contract in this country.

## British Pharmaceutical Conference

THE following is a complete list of the science papers to be presented at the forthcoming meeting of the British Pharmaceutical Conference at Brighton on June 21 and 22. The list includes those mentioned in our issue of May 7 :—

- "The Therapeutic Value of the Ultra-Violet Rays." By L. A. Parry, M.D., B.Sc., F.R.C.S.
- "Solution of Ammonium Acetate, B.P." By Noel L. Allport and T. Tusting Cocking, F.I.C.
- "A Colour Test for Ergot Alkaloids." By Norman Evers, B.Sc., F.I.C.
- "The Volumetric Assay of Iodides." By A. J. Jones, Ph.C., A.I.C.
- "High-Density Syrup for Pharmaceutical Use." By W. A. Whatmough, B.Sc., F.I.C., Ph.C.
- "The Estimation of Cineole." By T. Tusting Cocking, F.I.C.
- "The Plastic Behaviour of Tragacanth Mucilage and its Pharmaceutical Significance." By G. Middleton, B.Sc., A.I.C.
- "A Short Note on Catechu Pallidum." By C. J. Jordan, M.P.S.
- "A Note on Iron and Ammonium Citrate, B.P." By F. J. Todd, Ph.C.
- "The Official Preparations of Cinchona Bark." By F. J. Todd, Ph.C.
- "Sulphur Sublimatum." By C. Olive Griffiths, Burroughs Scholar.
- "Stramonium and Other Species of Datura. A Comparative Study of their Leaves." By Helen A. Timmerman, B.Sc.
- "Stramonium and Other Species of Datura. A Comparative Study of their Seeds." By Helen A. Timmerman, B.Sc.
- "Tragacanth and its Mucilage—II." By Norman Evers, B.Sc., F.I.C., and Thomas McLachlan, F.I.C.
- "Note on the Identification and Determination of Morphine in Compound Tincture of Camphor." By Charles M. Caines, F.I.C.
- "Spiritus Ætheris and Spiritus Chloroformi; the variation of the Specific Gravity with the Proportions of the Ingredients." By F. H. Milner.
- "Carbolic Acid Suppositories, B.P. 1914." By Harry Brindle, B.Sc. (Lond.), A.I.C., Ph.C., and L. H. Boardman, Ph.C.
- "A New Method of Locating the End-Point in Alkaloidal Titrations." By C. Morton, B.Sc., Ph.C.
- "The Detection and Estimation of Vitamin A and of Vitamin D in Cod-Liver Oil and Various Food Products." By Frank Wokes, B.Sc., F.I.C., Ph.C., and Stanley G. Willimott, Ph.D., B.Sc., A.I.C.
- "Some Constituents of Citrus Fruits." By Stanley G. Willimott, Ph.D., B.Sc., A.I.C., and Frank Wokes, B.Sc., F.I.C., Ph.C.
- "The Use of Certain Carbohydrates and Glucosides in the Differentiation of Members of the Salmonella Group of Food-Poisoning Bacilli." By Frank Wokes, B.Sc., F.I.C., Ph.C., and Joseph H. Irwin, B.Sc.
- "Vitamins in Orange Juice." By Stanley G. Willimott, Ph.D., B.Sc., A.I.C.
- "A Supplementary Paper on Official Astringent Drugs." By Alan H. Ware, Ph.C.
- "The Detection of Carbolic Acid in Commercial Cresols." By Alan H. Ware, Ph.C.
- "The Extractive of Ginger." By J. R. Walmsley, F.I.C., Ph.C., F.C.S., A.M.S.T.
- "The Detection of Chlorides in Mercuric Oxide." By G. J. W. Ferrey, B.Sc., A.I.C.
- "Tea Seed Oil and its Use as an Adulterant of Olive Oil." By H. A. Caulkin, B.Sc. (Lond.), F.I.C.
- "A Note on Antimony Trichloride and some Factors affecting its Stability as a Reagent for Vitamin A." By Frank Wokes, B.Sc., F.I.C., Ph.C., and Joseph R. Barr, B.Sc., F.I.C.

ON May 28 the office and warehouse staff of The Hoffmann-La Roche Chemical Works, Ltd., held their annual summer outing, proceeding by charabanc by way of Mitcham, Sutton and Reigate to Dorking, where the party spent the afternoon in sports on the common. After dinner at the "White Horse" Hotel, followed by a dance and a short concert provided by the staff, the return journey was made by way of Epsom and Ewell.



## Association Affairs

**Edinburgh.**—A meeting of the Executive Council of the Scottish Pharmaceutical Federation was held on May 26, Mr. Alexander A. Dick, Bellshill (President) occupying the chair. Five applications for membership were passed. It was mentioned that Mr. Dick and Mr. McNab had attended a meeting of the Special Parliamentary Fund Committee on May 9, and they gave a short report of the position in connection with representation of pharmacy in Parliament. In connection with a recent indemnity claim against a member by a person who alleged that she suffered pains in her stomach, and that blisters appeared after she took a medicine prescribed by a doctor and dispensed by the member, it was stated that nothing further had been heard, and it was presumed that the case had been dropped, the claim having been repudiated by the insurance company, as the medicine had been analysed and found to be in accordance with the prescription. A report was given of an action taken against a member under the Dangerous Drugs Acts Regulations; the member had been fined £3, and legal expenses in connection with the defence had been borne by the Federation. The accounts of the Federation to April 30, 1927, were submitted, the funds on hand being satisfactory. The chairman declared the following as duly-elected members of the Executive Council for 1927-28: Messrs. Robert Alexander, Strichen; James Jack, Arbroath; James Duff, Dundee; Peter Nisbet, Leith; B. Cartwright, Galashiels; W. G. McNab, Gorebridge; John H. Fisher, Dunfermline; Alex. A. Dick, Bellshill; P. M. Duff, Partick, Glasgow; Wm. Ferguson, Motherwell; T. L. Sinclair, Greenock; W. S. Brown, Cathcart, Glasgow; W. S. Culbert, Airdrie. It was agreed that a meeting of the new Council be held in Edinburgh on June 9.

**London (W.).**—The annual meeting of the Western Pharmacists' Association was held at 192 Oxford Street, W.1, on May 26, the President (Mr. C. G. Bonner) in the chair. The report of the general secretaries (Messrs. T. Morley Taylor and P. S. Windwood) showed that the year closed with a membership of 369, including eight honorary members. The death of Mr. Isaac Lloyd, an auditor and sub-district officer, was mentioned with regret. Mr. J. T. Barrett, a past-President, who was present, expressed thanks for his election as an honorary member. The report of the treasurer (Mr. W. E. D. Shirliff) gave details of slightly increased expenditure and diminished receipts during the twelve months, resulting in a reduction of the balance in hand from £154 to £128. The social secretary (Mr. W. B. Falding) reported an increased attendance at all the social functions, with one exception, and thanked Miss Bonner, Mr. Shirliff, Mr. G. W. Thomas and Mr. B. R. Wilkinson for their assistance. On the motion of the President, sums were voted as follows: £10 10s. to the Pharmaceutical Parliamentary Fund; £10 10s. to the Benevolent Fund of the Pharmaceutical Society; £5 5s. to the Society's Orphan Fund; £2 2s. to the Early Closing Association. The auditors, Messrs. W. Wilkinson and R. E. Lownsbrough, were re-elected. Messrs. A. R. Melhuish and C. A. Noble were renominated as members of the London Pharmaceutical Committee, and Mr. W. E. D. Shirliff was nominated in place of Mr. George Roe, resigned. Voting papers were distributed for the election of four members to the committee of the Association, Mr. G. W. Evans and Mr. G. A. Tocher acting as scrutineers; the candidates elected were Messrs. Taylor, Thomas, White and McBride, the first three of whom had retired in rotation. Regret was expressed that Mr. J. P. Ellerington, the ex-President, who had retired from business, was resigning from the committee. A vote of thanks to the officers was followed by a separate vote to the President, Mrs. Bonner and Miss Bonner, which was carried by acclamation.

**Wallasey.**—At the annual meeting of the Wallasey Pharmacists' Association, Mr. Kesterton presiding, it was reported that the membership numbered fifty, including twenty associates, and that the accounts showed a credit balance of £16. The following officers were elected:—*President*, Mr. Oliver Marsh; *Vice-President*, Mr. H. Siddall; *Treasurer*, Mr. A. Colbeck; *Secretary*, Mr. H. C. Tristram.

## Insurance Act Dispensing

Record of matters concerning Chemists' interests in the National Health Insurance Acts.

### ENGLAND AND WALES

#### Local Reports

**Bournemouth.**—At a meeting of the Insurance Committee, recently, the annual report showed that there were on the panel fifty-eight chemists, and that the prescriptions dispensed numbered 119,332, of a total value of £4,862 13s. 4d.

**Burnley.**—At a meeting of the Insurance Committee held recently the Pharmaceutical Service Subcommittee reported on two cases of test dispensing. (1) The analyst reported that a prescription containing sodii bicarb. gr. 90 showed an excess of 79 per cent. of that ingredient. The chemist stated in a letter that as a result of an influenza epidemic his stock of the bicarbonate was exhausted, and, being pressed for time, he used a solution. The Subcommittee recommended that the chemist be severely reprimanded. (2) Another sample showed inaccuracy, and the chemist responsible wrote that on the morning the sample was taken he was agitated because of the death of his wife. He admitted carelessness. The chemist was cautioned.

**Bristol.**—The Insurance Committee has adopted the report for the year 1926, which shows that £85,000 was spent for drugs and treatment; an increase in the cost of drugs was reported. The total cost per insured person for 1926 was 40.2d., against 40.1d. for 1925, and the cost per prescription was 8.6d. in 1926, compared with 8.4d. in 1925.

**East Ham.**—At a meeting of the Insurance Committee on May 25 it was decided that the Pharmaceutical Committee should be asked to state definitely on what authority they based their claim that the Insurance Committee's instruction as to the opening of chemists' shops on Thursday evenings could not be enforced without infringement of the Shops Act.

**Gateshead.**—The Insurance Committee recently decided to caution two chemists for having acted on their own initiative in dispensing prescriptions. In one case the chemist thought the doctor had made a mistake, and took the responsibility of supplying another prescription; in the second the patient had stated that he did not want pastilles and medicine, and the chemist had supplied the latter. It was reported that there were 50,626 insured persons on the register.

**Norwich.**—At a meeting of the Insurance Committee, held recently, it was stated that for the past quarter 48,745 prescriptions had been dispensed, the highest number since 1922, compared with 47,487 for the first three months of 1925.

## Business Changes

MR. H. B. SOUTH, chemist and druggist, has opened a business at 23 Cheapside, St. Helier.

THE TIMOTHY WHITE CO., LTD., have opened their new premises at 6 The Parade, Canterbury.

MR. F. S. WELCH, chemist and druggist, has opened a business at St. Matthew's Street, Ipswich.

MR. A. ASBURY, chemist and druggist, has acquired the business of Mr. Highfield, 14 Penn Road, Wolverhampton.

STRODE, COSH & PENFOLD, chemists, Bristol, have purchased the business of Mr. C. H. Eaton Lowe, chemist and druggist, 42 Redcliffe Hill.

THE HOFFMAN-LA ROCHE CHEMICAL WORKS, LTD., 7 and 8 Idol Lane, London, E.C.3, are removing on June 24 to The Roche Laboratories, 51 Bowes Road, N.13.

ASCOTT'S PHARMACIES, LTD., London, N., have purchased the businesses of Knowles, Fletcher & Co., Ltd., chemists, 7 Bexley Road and 34 Station Road, Belvedere.



## Trade Report

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling, packing, etc. Qualities of chemicals, drugs, essential and fixed oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities.

42, Cannon Street, E.C.4, June 9.

THE markets this week have been under the influence of the Whitsuntide holidays, and not until Wednesday was there any sign of business. There is very little new to report, and prices of most items remain unchanged. Opium is higher at the moment, but in view of the new Turkish crop now being gathered lower prices are looked for later. Cod-liver oil has been irregular, but prices generally are fully maintained, and the market still commands interest. Ipecacuanha continues extremely quiet. Ergot is dearer. Hydrastis is easier, and senega has an easy undertone in view of new crop offers. Lobelia and damiana are firm. Jamaica and African gingers have been in demand at rising prices, particularly for the former. Japan and carnauba waxes are firm. Among the essential oils East Indian sandalwood and American wormseed are dearer. Spanish oils are on the easy side, and lemon and bergamot are also cheaper. Among pharmaceutical chemicals the keen competition for the moderate business passing continues, and prices of some products are being cut very fine. Citric and tartaric acids remain steady. Among the industrial chemicals prices are mostly steady without any material change in business conditions. Lead products show a good recovery, and makers' home prices are expected to advance for white lead, etc. Potassium products are all steady. In the fixed oils group most products have remained quiet over the holidays, and the general tone is weak. Palm oils continue to decline. Linseed oil is slightly easier in all positions, closing steady, and turpentine has further eased.

| Higher           | Firmer         | Easier          | Lower        |
|------------------|----------------|-----------------|--------------|
| Ergot            | Cumin seed     | Cananga oil     | Arsenic      |
| Ginger (Jamaica) | Lemongrass oil | (c.i.f.)        | Bergamot oil |
| (W. African)     | (Cochin)       | Castor oil      | Lemon oil    |
| Opium            | Peppermint oil | (Brit.)         | Palm oils    |
| Pitch            | (J.p. dement.) | Hydrastis       | Platinum     |
| Sandalwood oil   | Phenazone      | Linseed oil     | Thymol       |
| (E.I.)           | Tartaric acid  | Mercury         | Turpentine   |
|                  | Wormseed oil   | Methyl          | Vetivert oil |
|                  | (Amer.)        | salicylate      | (c.i.f.)     |
|                  |                | Rubber          | Wood oil     |
|                  |                | Senega          | (Hankow)     |
|                  |                | Shellac         |              |
|                  |                | Spike oil (Sp.) |              |

### Cablegrams

NEW YORK, June 8.—Business is fair. Henbane leaves have advanced to 32c., and belladonna leaves to 20c. Euonymus (wahoo) bark of root is cheaper at 56c., and balsam Canada has declined to \$12.00 per U.S. gallon. Peru balsam is cheaper at \$1.65, and Oregon balsam of fir has fallen to \$1.45 per U.S. gallon; copaiba is cheaper at 53c. Short buchu has declined to 45c., and mercury to \$122 per flask.

BERGEN, June 8.—The catch of cod since the opening of the season amounts to 63,100,000, against 84,700,000 at the corresponding period of last year, and the yield of steam-refined non-freezing oil is 69,318 hectolitres, against 114,942 last year. The quotation for finest new steam-refined non-freezing Lofoten cod-liver oil is from 180s. to 185s. per barrel, c.i.f. London.

### Crude Drugs, etc.

ANTIMONY has been very quiet over the holidays, but Chinese regulus is steady in spite of the lack of new business. Spot lots stand at about £54 10s., and terms c.i.f. to arrive or for shipment range from £52 to £51. Spot crude is about £37 to £38 in warehouse, and shippers ask about £36 10s. c.i.f. English high-grade refined is £74 10s. to £75.

ARAROA.—An arrival of 43 cases has taken place via Antwerp.

CARAWAY SEED is quite steady, Dutch offering for prompt shipment at 38s. per cwt. c.i.f., and for new crop (August-September shipment) a premium of 2s. is asked.

CASCARA SAGRADA.—Offers of the new crop are being made for July-August-September shipment at 56s. 6d. per cwt. c.i.f. It is reported that heavy rains in the collection districts have interfered with the peeling.

CINCHONA.—At the auction held in Amsterdam on June 1, 46,725 kilos. Java pharmaceutical bark was offered for sale, representing a total content of 1,071 kilos. quinine sulphate. Of this total, 26,690 kilos., representing 620 kilos. quinine sulphate, were sold at from 35c. to 79c. per half kilo.

CLOVES are quiet, Zanzibar offering at 8½d. per lb. on the spot. To arrive, July-September shipment is quoted at 8½d., and August-October shipment at 8½d. per lb. c.i.f. The landings in London during the week ended June 4 were 250 and the deliveries 291, leaving a stock of 12,833 bales, against 17,107 bales in 1926, and 13,249 bales in 1925. Up to June 4 the landings of Zanzibar in London have been 13,698, against 9,650 in 1926, while the deliveries amount to 8,468, against 6,743 last year.

COD-LIVER OIL.—Business has been done at varying prices and last week's recovery has been fully maintained. Sellers quote finest new Lofoten medicinal from 177s. 6d. to 185s. per barrel c.i.f. for autumn shipment. The Finmarken fishing practically closes at the end of this month, and the number of boats still fishing is considerably smaller than at the corresponding period of last year. The production deficit up to date is approximately 39,000 barrels, compared with last year. It appears that a considerable quantity of oil has still to be bought, and many of the smaller buyers are hoping that the price will decline between now and autumn.

BERGEN, June 3.—The catch at Finmarken last week also gave a smaller result than in the corresponding week of the previous three years. The total output of all the Norwegian cod-fisheries, compared with that of the previous years, is as follows:—

|              | To | Catch of   | Yield of       | Livers for    |
|--------------|----|------------|----------------|---------------|
|              |    | cod        | steam-refined  | crude oils    |
| May 28, 1927 | .. | 61,200,000 | 67,996 hectol. | 6,957 hectol. |
| " 29, 1926   | .. | 81,800,000 | 111,859 "      | 13,375 "      |
| " 30, 1925   | .. | 55,100,000 | 85,936 "       | 9,454 "       |
| " 31, 1924   | .. | 62,445,000 | 105,549 "      | 15,772 "      |
| " 26, 1923   | .. | 44,800,000 | 77,267 "       | 16,533 "      |

DAMIANA LEAVES.—A few cwt. is offered for shipment from New York at 1s. 8d. per lb. c.i.f.; the spot value is about 1s. 6d.

EGG YOLK (dried) is scarce at 2s. 4d. per lb. It is difficult to buy forward on account of the troubles in China.

ERGOT.—The Continent is asking higher prices, 2s. 8d. to 2s. 9d. c.i.f. being quoted for Russian or Polish, and the same price is now asked on the spot. A number of parcels have been cleared off the London market lately. Spanish on the spot is 3s. 9d. per lb.

GAMBOGE.—Further sales have been made of the auction parcel at the higher limit announced last week.

GINGER.—Jamaica has been selling more freely, and recently a considerable quantity has been cleared off the market. The value of sound medium is about 65s. per cwt. New crop is now coming on the market and is available at from about 60s. to 75s., according to grade. African has been in improved demand, principally for the United States and from 28s. to 30s. is quoted, while to arrive 26s. per cwt. c.i.f. is wanted. The London stock of African is estimated at 22,967 bags.

HYDRASTIS is easier at about 19s. 3d. per lb. c.i.f., while on the spot the value is 20s.

INSECT FLOWERS.—Good small closed Dalmatian offer at from 115s. to 120s. per cwt. c.i.f., according to grade. *Insect Powder*.—There has been a good demand for powder from closed flowers at from 1s. 3d. to 1s. 4d. per lb.

IPECACUANHA is extremely quiet, and it is difficult to give the spot price of Malto Grosso in view of the fact that holders are asking for bids.

KOLA is still very scarce on the spot, and prices are likely to advance. Inquiries are being made for forward shipment, but offers are difficult to obtain.

LIQURICE ROOT.—Russian single peel is offered, ex wharf, at 36s. per cwt.

LOBELIA HERB remains firm on the spot at from 4s. 3d. to 4s. 6d.

MENTHOL.—Market has barely opened. Kobayashi-Suzuki is 16s. 6d. per lb. and outside brands 16s. 3d. on the spot. May-June shipment is 15s. 6d., and October-December shipment is 15s. 3d. c.i.f.

MERCURY has shown considerable irregularity, and it has been difficult to obtain reliable quotations, while business has remained quiet. Terms for spot parcels, less the usual discount, are about £21 to £21 5s. per bottle. The United States stocks held in bond at the end of March amounted to 2,050 bottles, against 2,365 bottles a month previous.

NUX VOMICA.—Bombay is offered at 15s. per cwt. on the spot.

OPUM.—The spot stock is practically exhausted; the limit for 11½ per cent. Turkey druggists' is now higher at 2s. 3d. per unit. There are various reports concerning the new



crop, but the balance of opinion is that it will be good. Prices will be maintained as long as possible, but they will have to be relaxed when the bulk of the crop becomes available.

CONSTANTINOPLE, May 30.—“During the past fortnight arrivals were as follows:—Druggists', 2,297; ‘softs’, 188; and Malatia, 343 cases. Stocks totalled:—Druggists', 376; ‘softs’, 64; and Malatia, 178 cases. Sales included: 7 cases second-grade druggists' at £127; 7 cases ‘softs’ at £131-32; and 28 cases Malatia at £126. Sterling exchange stood at about 925 piastres. After a long period of drought, rain has fallen in all the opium growing districts, thus justifying our expectation that the coming crop will certainly prove to be larger than that of last year. Nevertheless, holders of stock adopt a very firm attitude and assert that during the next crop they will sell their opium at unheard-of prices. Two of the largest holders have already proceeded to the districts where opium is grown in order to influence growers to adopt their point of view. In our opinion, it will be extremely imprudent to sell without adequate covering, and in the course of this year we foresee many a rise and fall in prices without plausible motives, which will considerably hamper the trade.”

PEPPER is about steady. Fair black Singapore is 1s. 1½d. per lb. Lampong 1s. 1½d. spot, Tellicherry 1s. 2d., and Alleppy 1s. 1½d., all spot. To arrive, Lampong for April-June shipment has been sold at 1s. 1½d. to 1s. 1½d., and August-October at 1s. 1½d. to 1s. 2½d. to 1s. 1½d. White Muntok is steady at 1s. 10d.; May-July shipment is 1s. 9½d., and August-October 1s. 9½d. value c.i.f.

PIMENTO is quiet at 8½d. per lb. on the spot, and for September-October shipment 63s. per cwt. c.i.f. is quoted.

PLATINUM.—Although the quotation of the leading home refiners is unchanged at £15 10s. per oz., somewhat more buying has been reported, but the bulk of the business appears to be secured by outside sellers, who are undercutting this to the extent of about 30s. per oz. According to Continental reports the production of the Russian State Platinum Trust for last year amounted to 92,692 oz. of raw metal, which therefore indicates a very considerable increase on the estimated poor returns that were circulated for several years previous. [At the close home refiners have reduced the price 20s. per oz. to £14 10s.]

RUBBER is decidedly easier, and has declined about 1d. per lb. The decline (the first movement of importance for the past two months) is due to heavy liquidation of near positions. Spot, which at one time declined to 1s. 6½d., was slightly better at the close at 1s. 7d.; at this price it seems to be grounding, the liquidation for the time being, having ceased. The East has been much weaker, and it appears that New York are more inclined to take interest at the lower level of prices. Stocks last week were slightly higher by 51 tons, and the London stock now stands at 67,105 tons, against 20,883 tons at the corresponding period last year. Quotations (Wednesday, 5 p.m.): No. 1 standard ribbed smoked sheet, spot and June, 1s. 7d.; July-September, 1s. 7½d.; October-December, 1s. 7½d. per lb.

SEEDS.—Owing to the holidays the market remains unchanged and price alterations are unimportant. ANISE.—Spanish is 49s., and Russian 29s. CANARY.—Mazagan is 17s. on the spot, and 16s. 6d. c.i.f. is quoted for new crop, June-July shipment; good bold Spanish is 26s. CUMIN.—Morocco remains scarce at 50s. spot, and Maltese 55s. per cwt. CORIANDER.—Morocco remains at 42s. on the spot, and 21s. c.i.f. is quoted for new crop (June-July shipment); Hungarian is 29s. FENUGREEK.—Morocco is 15s. 6d. spot and 12s. 6d. c.i.f. is quoted for new crop. DILL SEED is 21s. 6d. per cwt. HEMPSEED.—Manchurian is 14s. to 15s. LINSEED.—Mazagan is 20s. 6d. spot, and 19s. 10½d. c.i.f. is quoted for new crop. MUSTARD.—English is 29s. per cwt.

SENEGA is easy on the spot at 3s. 4½d. per lb., and for new crop 3s. per lb. c.i.f. is quoted for July-August-September shipment.

SENNA continues to command a fair amount of attention in view of the approaching new Tinnevely crop, and offers are being made for June-July shipment which show a firmer tendency. On this account shippers are not anxious to make forward contracts until more information is available as to the size and quality of the crop.

SHELLAC is easier, usual standard TN orange quality closing at 227s. 6d. per cwt. on the spot; fine orange, 240s. to 325s.; puro button, 275s., and AC cakey 210s. to 215s. To arrive, TN for June-July shipment is 220s. per cwt. c.i.f. Sales for delivery include August at 232s. to 227s. 6d., October 235s. to 230s., and December 237s. 6d. to 235s. Calcutta spot, rs. 104.

SQUILL.—Fair white is dearer on account of the appreciation in lire, 23s. 6d. per cwt. being quoted.

WAX, JAPANESE, remains very firm at from 100s. to 102s. 6d. per cwt. on the spot, and at from 93s. to 94s. c.i.f.

WAX, CARNAUBA, remains firm and likely to improve. Fatty grey on the spot is 140s.; July-August shipment, 138s. c.i.f.; October-December, 136s. 6d. c.i.f. Chalky-grey

is 136s. spot; July-August shipment, 133s. c.i.f.; October-December, 131s. 6d. c.i.f. Primera, 280s. spot; July-August, 250s. c.i.f.; October-December, 245s. c.i.f. Mediana, 250s. spot; July-August, 230s. c.i.f. (buyers); October-December, 250s. c.i.f. (sellers).

### Essential Oils

THERE are few price changes to record and the demand is moderate. East Indian sandalwood is to advance from July 1, and American wormseed is dearer. Java cananga is cheaper to arrive, and Spanish oils are easier. Lemon and bergamot are cheaper, and Bourbon yvetivert has declined. Cochin lemongrass is firmer.

ANISE (STAR).—“Red Ship” on the spot is steady at 2s. 7½d. to 2s. 8d. per lb. for leads. For shipment, 2s. 3½d. to 2s. 4d. c.i.f. is quoted.

BERGAMOT is cheaper at from 24s. to 25s. per lb. for 37 to 38 l.a., c.i.f. to arrive. On the spot there are sellers at 25s. 6d. to 26s.

CANANGA.—Java is quoted at 19s. per lb. on the spot for small lots. Cheaper rates have been quoted recently for shipment at 15s. c.i.f.

CARAWAY is dull and unchanged, despite the fact that the seed is very firm, and Dutch double-rectified is offered at from 7s. to 7s. 6d. per lb. as to quantity. Crude is about 4d. to 6d. per lb. less.

CASSIA on the spot is firm at 7s. per lb. for 80 to 85 c.a. For shipment there are offers at 5s. 11d. c.i.f.

CINNAMON.—Ceylon leaf is quoted on the spot at 5s. 10d. per lb. in drums and 5s. 2d. c.i.f. to arrive.

CITRONELLA.—Ceylon is unchanged at 1s. 4½d. per lb. on the spot and 1s. 3½d. c.i.f. for shipment. Java is dull and unchanged at 1s. 8d. on the spot, and for shipment 1s. 7d. c.i.f. is quoted.

CLOVE.—English distilled 90 to 92 eugenol is steady at 5s. 3d. per lb. in bulk for manufacturing. Druggists' quantities of B.P. oil are quoted at 5s. 6d. to 5s. 9d.

GERANIUM.—Bourbon is held for 13s. per lb. on the spot, but demand is slow. Algerian is obtainable at about 11s. 6d. in some directions, although higher values are maintained at the source.

GINGERGRASS has been arriving recently, but demand continues quiet. Spot is about 7s. to 7s. 6d.

LAVENDER.—Active buying is reported at the source, some of the Grasse houses being concerned, and it is suggested that this indicates that new crop prospects are unfavourable. Spot value of French oil, 38 to 40 per cent. esters, is about 17s. 6d. to 18s. per lb.

LEMON has been fluctuating during the week, quotations declining to 6s. 7d. to 6s. 8d. per lb. c.i.f. Rather higher prices are now asked at from 6s. 9d. to 7s. 1d. c.i.f. On the spot, there are sellers at from 7s. to 7s. 3d.

LEMONGRASS.—Cochin is firm at 3s. 4½d. per lb. c.i.f. On the spot 3s. 6d. is quoted, which is dearer.

LIME.—West Indian distilled is firm at 30s. per lb. on the spot. Hand-pressed is nominal at 40s.

ORANGE.—Sicilian sweet is quoted on the spot at from 9s. 6d. to 10s. per lb. Prompt shipment is offered at 8s. 11d. to 9s. c.i.f. New crop Californian is in very short supply at 7s. 3d. for cases. West Indian sweet is 8s. 6d. to 9s.

PEPPERMINT.—Japanese demethylised is firmer at 7s. 6d. to 7s. 9d. per lb. on the spot. July-August and October-December is 7s. 6d. c.i.f.; January-March, 1928, 6s. 9d. to 7s. c.i.f. American natural tin oil is quoted at 15s. to 15s. 6d. c.i.f., but offers are not freely made. On the spot 13s. 6d. to 16s. is about the value. The exports from U.S. during February amounted to 12,734 lb., valued at \$60,882. The chief destinations were:—U.K., 4,629 lb.; Germany, 2,770 lb.; French Indo-China, 2,000 lb.; Canada, 902 lb.; Australia, 795 lb.; France, 410 lb.; Sweden, 360 lb.; Argentine, 243 lb.; New Zealand, 210 lb.; Roumania, 176 lb.; Italy, 132 lb.

PETITGRAIN.—A fair amount of business has been passing in Paraguayan, and in some directions higher prices are quoted. Ten-case lots of branded oil are quoted at 6s. 1d. per lb. c.i.f., and on the spot single cases are obtainable at 6s. 6d., five cases being 6s. 4d.

ROSEMARY.—Primo quality Spanish is a shade cheaper at from 2s. 1d. to 2s. 3d. per lb.

SANDALWOOD.—The official agents of the Mysore Government announce an advance in the price of B.P. East Indian oil. From July 1 prices will be:—One case, 25s. 6d. per lb.; five cases, 24s. 6d.; 30 cases, 24s.; 80 cases, 23s. A previous advance was given in the *C. & D.*, April 16, p. 476. West Australian, 90 to 95 per cent., ranges in price from 15s. 6d. to 18s. 6d. as to description.

SPIKE.—Spanish on the spot is on the easy side at from 3s. 7d. to 3s. 9d. per lb. as to quantity. Importers state that production this year is likely to be much less in view of the present low values. This applies to most of the Spanish oils.



THYME.—Usual commercial quality Spanish oil, 28 to 30 per cent. phenols, is quoted at 3s. 6d. per lb.

VETIVERT.—Supplies are now afloat from Réunion and are offered at cheaper prices. On the spot, stocks are scarce and small sales have been made recently at steady rates. Present value is about 32s. 6d. to 33s. per lb.

WORMSEED (CHENOPODIUM).—There has been a fair demand for American, which is dearer, 13s. per lb. being quoted to arrive and 12s. 6d. c.i.f.

### Pharmaceutical Chemicals, etc.

THE chief feature during the past few weeks is the keen competition between dealers for the moderate business offering, which has resulted in prices for some products being cut to a very fine margin. Citric and tartaric acids keep steady.

ACETANILIDE is steady but quiet: B.P. crystals and powder at about 1s. 6d. per lb.

AMIDOPYRIN.—Business has been done in London at the bottom price of 8s. 9d. per lb.; competition is very keen.

ASPIRIN is maintained at the old quotations of 2s. 4½d. to 2s. 5½d. per lb., as to grade and quantity; business has been moderate.

BARBITONE is being cut very fine when inquired for in any quantity: small lots are about 5s. 10d. to 5s. 11d. per lb.

BENZALDEHYDE continues to be quoted at 1s. 11d. per lb., in carboys; business small.

BENZOIC ACID (B.P.) continues in good inquiry, with the market steady: British, 2s. 3d. to 2s. 4d. per lb., ex works; Continental, p.f.f.c., 3s. 6d. spot.

BROMIDES.—A steady business of moderate size is reported, with prices holding well: ammonium, 2s. 1½d. to 2s. 1¾d.; potassium, B.P., crystals, 1s. 9½d.; powder, 1s. 9d.; sodium, B.P., 1s. 11d. per lb., in quantities.

CALCIUM LACTATE has been in better request, with price for fair-sized quantities steady at 1s. 2d. per lb.; small parcels, 1s. 3d. per lb.

CHLORAL HYDRATE.—Duty-paid crystals in at least one quarter is offered in cwt. lots down to 3s. 1d. per lb.; smaller lots, 3s. 2d.

CITRIC ACID (B.P. crystals).—A fair volume of business continues, and the bottom price for spot parcels of foreign has been about 1s. 6½d. to 1s. 7d. per lb., less 5 per cent. Offers from the Continent are firm and show some sign of moving higher; about the best price to hand from that source this week was 1s. 7½d. to 1s. 7¾d. per lb., c.i.f. U.K., less 5 per cent.

CREOSOTE.—B.P. is steady at 1s. 9d. per lb., in demijohns.

CREOSOTE CARBONATE is of small interest; dealers' prices are keen, from 5s. 9d. for quantities and up to 6s. for small lots, in bottles.

GUAIACOL CARBONATE remains dull, with no further change in prices at about 5s. to 5s. 3d. per lb.

HEXAMINE.—Moderate business continues, with the market keeping steady, quoted from 2s. 4d. to 2s. 5½d. per lb., as to quantity and grade.

HYDROQUINONE has been in good inquiry during the week, and dealers' prices, from about 3s. 11d. per lb., are steady.

LACTIC ACID (B.P.).—Dealers' prices, from 2s. 6d. per lb., remain steady; fair demand for technical, 50 per cent. by weight, quoted from £39 per ton.

METHYL SALICYLATE is steady but not over active market: bottom price for large quantities is at 1s. 6d.; smaller lots from 1s. 6½d. to 1s. 7d. per lb.

METHYL SULPHONAL is quoted at about 10s. 6d. per lb.; business remains slow.

MILK SUGAR.—There has been a good demand during the past few weeks. Dealers' prices are very competitive, the bottom rate for quantities being 58s. per cwt. for B.P. powder.

PARAFORMALDEHYDE (100 per cent. powder) is quoted at from 1s. 8d. per lb. for fair quantities.

PARALDEHYDE remains quiet at unchanged prices of 1s. 1½d. to 1s. 2½d. per lb., as to quantity and packing.

PHENACETIN shows no change since our last report with business moderate; powder in quantities at about 2s. 9d.; crystals, from 2s. 9½d. per lb.

PHENAZONE is steadier, but dealers' prices are very keen: sales of quantities at about 4s. 3½d. to 4s. 3¾d. per lb.; small lots, from 4s. 4d. to 4s. 5d. per lb.

PHENOLPHTHALEIN is very steady: half-ton lots at 5s. 11d.; smaller quantities from 6s. to 6s. 2d. per lb.; business moderate.

POTASSIUM PERMANGANATE (B.P.) is steady at 6½d. per lb. for quantities in drums.

POTASSIUM SULPHOGUAIACOLATE is neglected: quoted at about 5s. to 5s. 3d. per lb.

RESORCIN.—Competition between dealers is the main feature, with prices ranging from 4s. 1d. to 4s. 4d. per lb. as to quantity.

SALICYLIC ACID (B.P.) is steady at from 1s. 3½d. to 1s. 4½d. per lb. as to quantity; business has not been of much account.

SALOL shows no change at 2s. 3½d. to 2s. 3¾d. per lb., and 1½d. per lb. more for powder.

SODIUM BENZOATE (B.P.) continues quite active and prices are very steady at about 1s. 8d. per lb.

SODIUM DIETHYLBARBITURATE remains flat at about 8s. 10d. to 9s. per lb.

SODIUM SALICYLATE (B.P.) is unchanged and business has been limited: crystals, 1s. 10d.; powder, from 1s. 9d. per lb.

SULPHONAL remains dull at from about 7s. per lb.

TANNIC ACID.—B.P. *leviss* is unchanged at from 2s. 8d. to 2s. 10½d. per lb. as to quantity.

TARTARIC ACID (B.P. crystals).—Business has been moderately good, and so far as spot prices are concerned the position seems somewhat firmer at 1s. 3½d. to 1s. 4½d. per lb., less 5 per cent. for foreign. Continental offers continue firm and fully support the spot rates.

TERPIN HYDRATE is neglected at 1s. 6d. per lb. for quantities.

THYMOL is offered at the cheaper rates of 10s. 3d. to 10s. 9d. per lb., according to quantity.

VANILLIN (100 per cent. from cloves).—Dealers' prices for fair quantities would be from 17s. to 17s. 3d. per lb.; small parcels at 17s. 6d. per lb.

Among the imported chemicals which have paid Key Industry duty during the period May 25 to 31 inclusive are the following:—Acetic acid, £453; butyl lactate, £406; cocaine hydrochloride, £792; magnesium hydroxide, £344; metol, £531; salicylic acid, £201; undescribed chemicals, £1,364.

### Industrial Chemicals, etc.

London, June 8.

THERE is a very steady tone throughout, and conditions show no material change from those reported last week. Business in some of the seasonal products has been better.

ACETIC ACID continues steady and unchanged, with an average business being done: 80 per cent. technical and 80 per cent. pure, £37 per ton, in barrels; 99 to 100 per cent. glacial, pharmaceutical, £56, in glass demijohns; glacial, in barrels, £56 per ton, ex store.

ACETONE is likely to remain at last week's new figures for some time. B.G.S., in drums, £58 to £61 per ton, for one to ten tons.

AMMONIA (ANHYDROUS) has met with fair spot business in small lots, dealers quoting 99.95 per cent. at 1s. per lb., in loaned cylinders, carriage paid; cheaper for contracts.

AMMONIUM CHLORIDE is meeting with a steady business of small size on spot at £22 per ton, for grey galvanising, in casks; cheaper for contracts.

ARSENIC.—At the lower level of terms recently established for white Cornish of £15 5s. to £15 10s. f.o.r. mines, somewhat more interest has been shown.

BARIUM CHLORIDE is quiet on spot: parcels are offering at about £8 15s. per ton for 98 to 100 per cent. prime white crystals, in casks, ex store; cheaper forward in quantities.

BLEACHING POWDER remains quiet, and dealers' prices are very competitive, with the British makers' price to home consumers at £8 per ton, carriage paid.

COPPER SULPHATE.—The demand was quieter, but the tone remained steady, further inquiries being reported for export and f.o.b. terms, standing at about £24 5s. up to £25 5s. per ton, less 5 per cent., according to brand, for casks.

CREAM OF TARTAR.—A fair amount of business has been done at the bottom price of 97s. 6d. per cwt., less 2½ per cent.; smaller parcels are up to 99s., less the usual discount. Continental position holds firm.

EPSOM SALT.—Most inquiries have been for forward delivery, for which cheap rates are being quoted: spot parcels of commercial quality, about £4 17s. 6d. to £5 per ton, in single bags, ex store.

FORMALDEHYDE has met with average business, with prices very steady at about £40 per ton, for 40 per cent. by volume.

FORMIC ACID continues steady, and prices are well held in the region of £46 per ton, for 85 per cent. in carboys.

GLAUBER'S SALT has been inquired for mostly to come forward, for which keen rates are quoted for large quantities: spot parcels of commercial quality in single bags, £3 12s. 6d. per ton, ex store.

LEAD PRODUCTS.—Market shows a good recovery and closes very steady, with a fair amount of inquiry. Acetate, brown, £41; white, £43 per ton, in casks, ex store; red lead, imported, £32 10s., c.i.f. London; white lead, dry, £31 10s.; ground in oil, £33, c.i.f. London.

OXALIC ACID is very steady, with a good business being done: dealers quote from 2½d. to 3d. per lb., ex wharf.

POTASH CAUSTIC is very steady, although business has not been of much account. Convention rates for spot 88 to



92 per cent. solid, £30 10s., in drums, ex store; 15 tons or more, £28 15s. per ton, c.i.f. U.K. port.

POTASSIUM CARBONATE has met with a little more inquiry, with prices unchanged and steady: 90 to 92 per cent., £26; 96 to 98 per cent., £28 per ton, in casks, ex store; cheaper for contracts.

POTASSIUM CHLORATE shows little life, with prices cut very fine for big business; quotations range from 2½d. to 3½d. per lb., as to quantity.

POTASSIUM PERMANGANATE has been in more demand, and the price of commercial standing at about 5½d. per lb., in two-cwt. drums, is inclined to harden.

POTASSIUM PRUSSATE is steady but quieter than usual; yellow, in casks, 7½d. per lb., ex store.

SAL AMMONIAC.—Dealers report quite good inquiry, and prices are steady: dog-tooth crystals, £29; medium, £23; fine white crystals, £19 per ton, in casks, ex store; cheaper for contracts.

SODIUM ACETATE has received some attention from buyers, and now seems steady at about £17 15s. per ton, in casks, ex store, and is inclined to harden a little.

SODIUM CHLORATE remains dull, with offers of large quantities to come forward at about 2½d. per lb., ex wharf; small spot lots, from 3d. per lb.

SODIUM HYPOSULPHITE has been in good demand during the last few weeks. Pea crystals, in one-cwt. kegs, are about £15 2s. 6d. to £15 5s. per ton, ex wharf; commercial quality, £9 5s. per ton, in casks. British makers' price for pea crystals to home consumers on contract, £15 5s. per ton, carriage paid to buyer's station.

SODIUM NITRATE.—Business in London has been very poor so far this season, and is still confined to small orders: 95 per cent., £13 10s.; 96 per cent., refined, £13 17s. 6d. per ton, f.o.r. docks, London.

SODIUM NITRITE is also very slow for the time of year: 100 per cent. basis, £19 10s. per ton, and 20s. cwt., docks.

SODIUM PRUSSATE is steady, and there has been more business: dealers offer at 4½d. per lb., in casks, ex store.

COAL-TAR PRODUCTS, ETC.—Carbolic acid crystals have weakened on a quiet market and close rather unsteady. Pitch has advanced on quotation. Other products are about level on the week, with the market on the quiet side. ANILINE OIL continues steady and in fair demand at 7d. per lb., in loaned drums, carriage paid. ANILINE SALT is unchanged and the market is steady at 7d. per lb., packages extra, carriage paid. BETANAPHTHOL is very steady at 1s. to 1s. 0½d. per lb., carriage paid. TOLUOL has been moving in better volume at steady rates: commercial 90's, 1s. 4½d. in North and 1s. 6d. in London and South. XYLOL remains dull: commercial, 2s. 1d.; pure, 2s. 6d. per gallon, ex works. CARBOLIC ACID (39° to 40° C. ice crystals) has been quiet all the week, and the market quotation is about 8½d. per lb., in drums with over-casks. CRESYLIC ACID is holding firm, with the market continuing active, at 2s. 4d. per gallon, naked, for pale. NAPHTHALENE has met with a little more inquiry and prices for imported flakes and balls are steady at about £15 15s., in cases, ex wharf. Pure METHYL ALCOHOL is offered in one-ton lots at £46 per ton, in drums, ex wharf; cheaper for quantities. PYRIDINE remains very slack: offers from 7s. 6d. per gallon, f.o.b. PITCH.—The market quotation is now 75s. per ton, f.o.b. East Coast; some business is reported.

#### Fixed Oils, etc.

MOST products in this section have remained quiet over the holidays, and the general tone is rather weak. Palm oils are still dull and show a further loss. American turpentine remains very cheap. ACID OILS continue quiet and unchanged (see p. 699). CASTOR is unaltered, but prices are unsteady: pharmaceutical, 52s. 6d.; first pressings, 47s. 6d.; second pressings, 44s. 6d. per cwt., in barrels, on spot, in net less than one-ton lots. Italian is quoted at 77s. 6d. per cwt. in tins and cases, ex wharf, London. COCONUT has been dull over the holidays: deodorised, 47s. 6d. spot; Ceylon, 40s. 9d. c.i.f.; Cochín, 44s. 10d. c.i.f. COTTON is steady but quiet (see p. 699). GROUNDNUT and PALM KERNEL are unchanged (p. 699). PALM continues to fall and business is quiet: Lagos, 31s. 9d.; softs, 31s. 3d.; mediums, 31s. 7½d.; hards, 33s.; bleached, 34s. 6d. spot. RAPE.—Business has been quiet, with prices unchanged (p. 699). SOYA is dull and unchanged: deodorised, 41s.; crude, 38s. spot. LINSEED (raw, naked).—At slightly easier prices for all positions the market is fairly steady: on spot 34s. 6d. per cwt.; June, 33s. 4½d.; July-August, 33s. 6d.; September-December, 34s. Boiled oil, spot, 39s. Hull, on spot, 34s. 4½d.; June-August, 34s. 4½d.; September-December, 34s. 4½d. TURPENTINE was very dull and with a further

drooping tendency in America, due to the continuation of large receipts, quotations at this end have weakened further. Spot closes at 42s. 9d. per cwt., July-December 44s. 9d. Deliveries for last week were 2,543 barrels, making a total since January 1 of 60,647 barrels, this comparing with 51,742 barrels for the same period last year. Total stocks were returned at 20,226 barrels, which, together with 200 barrels afloat, makes the total visible supply 20,426 barrels, against 16,748 barrels at the same date last year. RESIN.—There has been an improved demand from consumers, and quite a fair amount of business has gone through, while current rates have been found rather more attractive. C.i.f. terms for prompt shipment from America are about as follows:—B to E 20s. 4½d. to 20s. 6d., F to I 20s. 7½d., K.M. 20s. 10d., W.G., 24s. and W.W. 26s. 9d. Rather high premiums are wanted on the spot as stocks are still small. WOOD.—Hankow is easier at 94s. per cwt., spot, in barrels. OLIVE.—French edible, 10s.; B.P., 8s. 9d.; Italian edible, 10s. per gallon.

LUBRICATING, MINERAL AND BURNING OILS, ETC.—There is no special change this week. Lubricating oils are steady on spot and for shipment, but business is quiet. Prices of BENZOL, FUEL OIL, PARAFFIN WAX and SOLE, PARAFFIN OILS, WHITE OILS and SOLVENT NAPHTHAS remain as given on p. 699 of last week's issue.

#### Merchandise Marks Act, 1926

THE British Chemical and Dye-stuffs Traders' Association, Ltd., are now advised by the Board of Trade that as the Act states . . . goods or packages marked with the name of any place or district in the United Kingdom must be marked with an indication or origin . . . shipping marks, as A.B.C. London

must be obliterated at the time of sale wholesale, unless an indication of origin is given on such goods or packages. There appears to be no objection to a combination of letters, such as A.B.C., remaining on the packages, provided they do not suggest British manufacture, but it will be necessary to obliterate the name of the port of arrival unless an indication of origin is added to it. For instance:—

|               |          |               |         |
|---------------|----------|---------------|---------|
| <u>A.B.C.</u> | FOREIGN. | <u>A.B.C.</u> | Made in |
| London.       |          | London.       | France. |

#### Smyrna Opium Report

IN consequence of the long period of drought in the higher parts of the interior the crop, which promised to be very abundant, has been seriously endangered. On the other hand, the environs of Smyrna have been favoured with sufficient rain to enable the crop to be gathered in good condition, and, in spite of a certain amount of damage which occurred in some places, the yield in the neighbourhood of this town has been satisfactory. In the higher situated parts the gathering of the crop will take place about the middle of June, and if no rain falls by that time the yield will be by 30 to 40 per cent. below the average. Put for this drought in the higher situated regions this year's crop would have amounted to practically double that of last year, since in most districts the growers have doubled the area under cultivation, sowing poppy seeds in place of growing cereals, which proved a failure last year. On the whole, however, the damage done by the drought will be compensated by the yield from the larger area under cultivation, and for this reason the crop is expected to produce as much, if not slightly more, than last year's production, and is already estimated to yield from 5,000 to 5,500 cases. The stocks in hand of last year's crop amount to approximately 900 cases, of which 750 cases are in Constantinople (of these 300 are "softs"), and 150 cases in Smyrna, whereas at this time last year there were no stocks available. A few speculators in the districts affected by the drought, and who hold a large portion of these stocks, have purchased 60 cases of opium, with a content of 11.5 per cent. of morphine, at £T27.50 and 23 per oke for July-August delivery; this price is equal to 25s. a pound c.i.f. European port, and to it must be added the 2.5 per cent. export tax enforced from June 1, 1927. These purchases have had a considerable influence on the prices quoted in the interior, and 300 okes of opium which had already arrived on the Smyrna market were immediately bought in at £T22.25 per oke, in spite of the fact that this consignment contained a large amount of moisture and only 9 to 10.5 per cent. of morphine. It is generally assumed that these conditions will prevail for some time, and that rather high prices will continue to be quoted in Smyrna. However, as soon as the crop has been gathered in the higher situated districts and large consignments commence to arrive, there is every likelihood that prices will decline. Nevertheless, the future fluctuations in prices on the Smyrna market will depend chiefly upon the demand for export.





Letters for this section should be written on one side of the paper only. Correspondents may adopt an assumed name for purposes of publication, but must in all cases furnish their real name and address to the Editor.

### Insurance Dispensing Terms

SIR,—With regard to the observations of "Xrayser III" in your last issue (June 4) concerning the amount paid by the London Pharmaceutical Committee to the Retail Pharmacists' Union for checking prescriptions, I wish to point out that the correct figure is £680, not £800 as stated. The number of prescriptions checked during the year 1926 averaged 65,000 per month.—Yours faithfully,

G. A. TOCHER,  
Secretary, London Pharmaceutical Committee.

SIR,—"Jay Mack" writes that tincture of orange has wasted £50,000. We have dispensed 3,000 N.H.I. prescriptions a month for seven years, and have never known it to be ordered. The other figures "Jay Mack" writes seem fantastic. Does he suggest dressings should be exposed to the air in preference to being wrapped? If so, he is surely behind the times, and such an idea would find favour with no one. We get 1.1d. for a 2-inch bandage. Does "Jay Mack" say this is excessive and wasteful?—Faithfully yours,

CAMPION & Co.

London, S.E.15.

SIR,—With reference to your editorial article in the issue of May 28 entitled "Insurance Dispensing Terms," upon which I am to offer you the congratulations of my Committee, it may be of interest to your readers to learn that the Middlesbrough Pharmaceutical Committee have submitted for the consideration of the R.P.U. Executive the following resolution unanimously adopted at their last meeting:—

"That this Committee views with apprehension any proposal for disbursement of the drug fund which omits a decentralisation clause. It submits for the careful consideration of the R.P.U. Executive:—

(a) The establishment of a Central Distribution Committee for the allocation to each Insurance Committee area of a sum equal to a rate of 2s. 10½d. (or thereabouts) per insured person per annum.

(b) That each area shall have the first call on its allocation.

(c) That any surplus remaining shall be diverted to assist areas which overspend their allocations."

While we would not go so far as to say the discussion of a detailed plan was deliberately burked by the Executive at the recent Conference, the chairman, Mr. H. J. Martin, in his opening address, was at pains to stress the importance of discussing only what he termed the "general principle" of accepting or rejecting one or other of the two alternatives offered by the Ministry of Health. It becomes all the more necessary therefore that not only should suggestions be sent up to the R.P.U. Executive, but also that there should be a very frank and unfettered discussion of any scheme before it is submitted to Pharmaceutical Committees for their approval. It appears to us that if the "safeguards" (named by the chairman of the N.H.I. Committee of the R.P.U. as being accepted by the Minister) are of any real value, the success or otherwise of any scheme of disbursements is going to hinge upon the measure in which local Pharmaceutical Committees function. Under the circumstances it would surely be iniquitous to penalise, by means of a discounting clause, an area which maintains solvency by virtue of the vigilance of its Pharmaceutical Committee, and we think that such an area is at least helping the lame dog, and at most bestowing a bounty to which it has just claim, by offering to the Central Distribution Committee for disbursement to deficiency areas any part of its allocation over and above its first call. We sincerely hope that a scheme embodying these principles will be insisted upon by Pharmaceutical Committees throughout the country.

Yours faithfully,

J. C. THOMPSON.

Secretary, Middlesbrough Pharmaceutical Committee.

SIR,—Your valuable journal is read and studied by all the Government officials connected with the Insurance Acts. What will they think of chemists as a body when they see "Jay Mack's" figures? To make £3,000,000 would require over 20,000,000 insured persons, and then there would have to be provided what was not wasted. It can easily be found out how many insured people there are, and how much the total fund to pay the bill is. These facts are public property to all taxpayers, as the N.H.I. Acts are not a private concern. No body of chemists feels more exasperated than those on the panel in Surrey, as Surrey has always been, and is now, perfectly solvent, but no good purpose is served by making such rash and ridiculous statements not founded on facts.

Yours truly,

Cobham.

W. N. TIMS.

SIR,—"Jay Mack" is, as usual, rich in the matter of statistics, but I doubt if authorities, doctors, etc., will take much notice. Of course, the fact is clear that too much medicine is prescribed. That it is taken by patients no one believes; a large proportion no doubt gravitates to the sink. As I mentioned a few weeks ago, the doctor, on his own statement, writes a script at each visit as "they expect it"—who "they" may be I do not know—but as all these modern functionaries and committees delight in figures, it is probable that the number of scripts or chits written is expected to correspond in some way to the number of visits or attendances. Otherwise the doctor might be thought negligent. If some economy is necessary, as seems to be the case, this might result from a drastic revision of the sundries schedule. "Jay Mack" is severe on the "out of work" and "malingerers," but while people can only get relief by signing on and putting in motion the whole machinery, you have to take the good with the bad. After all—as so many critics forget—the vast majority are out of work through no fault of their own, and are scheduled, tabulated and panelled by Act of Parliament. It is also clear that with no great number of exceptions the insured (N.H.I.), instead of getting ninepence for fourpence, pay ninepence for fourpennyworth, or less. In my view, the whole drift of all these schemes is rotten, and will be worse before anything better is likely to come about—this by reason of the demoralisation that rapidly sets in. Provision against sickness is reasonable and understandable, but even here the authorities cannot differentiate—i.e., a man is well and at work, or he is ill and "under the doctor." About half the patients are, I should say, not ill, and only see the doctor because that is an essential part of the scheme. As to unemployment, this should not be possible in a well-ordered community. I am no Socialist, but if a government can in wartime keep everyone at work, they could do the same in the years of peace. I suppose we have an unemployed section in pharmacy (to be prevented, of course, by putting a bar on newcomers); but how much better for these if they could be kept in touch with pharmaceutical operations, rolling pills, making galenicals and the like. The actual waste might not be so great as some would imagine. The "dole," I understand, is likely to disappear with the present year; but that the matter will be taken in hand and dealt with from the foundation upwards I do not believe.—Yours, etc.,

J. P. N. (7/6).

SIR,—The letter of "Jay Mack" (*C. & D.*, June 4, p. 701) is written in his usual breezy and snappy style, but there is one thing he overlooks—that in estimating waste his particulars do not apply to every district. For example, he gives an item of £50,000 wasted through using tincture of orange to flavour mist. *sodii salicyl.*; but in the formulary book which is the only official one in my area (which, I may say, is an extremely large and industrial one), this particular mixture contains no tincture of orange—in fact, there is no tincture of orange in the book. Of the seven mixtures quoted by "Jay Mack," *mist. sodii sal.* is the only one with the same name in both cases, and even that is evidently a different formula. Possibly we may have the one called *mist. bism. c. soda*, as we have one containing these ingredients under another name. This contains 240 gr. of *bism. carb.* in the 12-oz. bottle, and as it is prescribed very freely there must undoubtedly be a good deal of



waste. Another formula which is in constant use contains 3 oz. of glycerin in the 12-oz. mixture, and surely this is unnecessary. With regard to dressings, a large amount of waste is incurred. For instance, a customer enters, volunteers the information that he has shut his finger in the door, and presents a script for 8 oz. boric lint, 8 oz. cotton-wool, 1 sq. ft. oiled silk, and  $\frac{1}{2}$  doz. 1-in. bandages; when he gets his parcel he looks at it in amazement and asks what he wants all that lot for. I am surprised to find "Jay Mack" repeating the old scare about all the people who are waiting with open mouths to bite the Insurance apple if we find it too sour to eat; surely he does not believe it. Referring to the suggestions put forward by the R.P.U. as a means to control excessive prescribing, one item is that doctors should be required to justify the use of proprietary articles when there are B.P. or B.P.C. equivalents available; I can imagine what the reply of any doctor would be if asked such a question. So if we carry on under the new arrangement it is a certainty that in the next two years we shall have all the trouble over again, with this difference that by that time we shall be pounds of hard-earned money out of pocket.—Yours faithfully,

POCKETLESS (8/6).

SIR,—From the account of the London meeting held to discuss the drug tariff terms (*C. & D.*, June 4, p. 675), it would appear that the delegates were quite ready to adopt a scheme which will bind the panel chemist to supply drugs and labour to the value of £100 and to receive in payment £75 for at least a period of the next two years. As I am situated on the border-line of two or three areas I am on more than one panel, and have had the opportunity of attending more than one of the meetings called during the last week in May to discuss the Ministry's offer; in each case the meeting decided definitely against a substantial cut in remuneration, and also against any system of discounting. I have heard that this was the result in other areas, and it would be as well to know what was the consensus of opinion all over the country. Further, although a deficiency of 15 per cent. is quoted, it seems that already there is a deficiency of 27 per cent. for the first quarter of this year. The R.P.U. have asked the Ministry to provide six special safeguards against the depletion of the drug fund, but I should think there are very few panel chemists who have any delusions left on the possibilities of either the R.P.U. or the Pharmaceutical Committees having any real power to control prescribing, however extravagant it may be. The Government have tried to control the prescribing within the bounds of the drug fund, and their offer to hand over the administration of this fund to the R.P.U. is the admission of their failure.

Yours truly,

DISCOUNTED (7/6).

## Legal Queries

*R. S.* (24/5).—An assistant has no legal claim for bank holidays unless an agreement has been made to this effect.

*J. M.* (23/5).—Troch. morph. and troch. morph. et ipecac. come within the regulations of the Pharmacy Acts for storing poisons. Green fluted bottles as containers in the open pharmacy thus comply with the requirements.

*Afga* (1/6).—The Dangerous Drugs Act Regulations require the amount of cocaine to be stated on a prescription by the doctor. "Guttæ oleo. c. cocain. sij." does not comply with this requirement. The amount of cocaine must be stated.

*J. P. M.* (23/5).—If the ointment you propose selling is intended for the cure of ailments such as eczema or abscesses it will be liable to medicine-stamp duty. Any claim of proprietary rights in the article would also be a factor in determining the liability.

*C. & E.* (23/5).—The wording on the corn plaster envelope would render the remedy referred to liable to medicine-stamp duty. A reference to the formula of the preparation contained in a standard work of reference would not help matters in view of claims to proprietary rights in the preparation.

*A. W.* (1/6).—A proprietary article liable to stamp duty may not legally be sold *per se* unstamped, even if ordered in a prescription. The supply of the article unstamped for dispensing is allowed because the preparation may be ordered to be mixed with some other ingredient in a prescription, as in making an ointment.

*L. C. M.* (31/5).—It is necessary under the Business Names Registration Act that you register the names of the persons carrying on the Blank Perfumery Co. The Act requires this of any business which trades in a name that is not the Christian name (or initial) and surname of the persons carrying it on. The address of the Registrar is North-East Wing, Somerset House, London, W.C.2.

*J. M.* (24/5).—The *C. & D. Diary*, 1927, contains an exposition of the new regulations dealing with the use of preservatives in food. The question arises as to whether extract of malt and cod-liver oil is a "food" which is defined in the regulations as "food or drink intended for human consumption." We should regard extract of malt and cod-liver oil as a medicine as it is not taken in the ordinary way as a food.

*A. L. H.* (25/5).—If a cheque is made payable to Alfred Jones, is an endorsement, "Alfred Jones" or "A. Jones" sufficient? [Strictly, the endorsement should be identical with the name to which the cheque is made payable, and we consider that a bank would be entitled to insist upon an endorsement "Alfred Jones," even if the payee's usual signature takes one of the shortened forms mentioned.]

*X. Y. Z.* (31/5) holds his premises on a lease which gives him an option to renew it for a further period of five years. Is there any specific date before which he must signify his intention to renew? [It is probable that the lease itself specifies how long before the expiration of the present lease the option to renew must be exercised; but if it does not, "X. Y. Z." can give his landlord notice of his intention to renew at any time before the end of the present lease.]

*S. M. C.* (24/5).—The question has never been raised in the Courts as to the use of isopropyl alcohol in flavouring essences, but, under the Sale of Food and Drugs Acts, if these essences can be held to be either a food or drug the purchaser has to receive what he expects to and the product must not be injurious. Isopropyl alcohol is no more injurious to human beings than ethyl alcohol, but we think a statement should be made on the label that the essence contains isopropyl alcohol.

*J. W. S.* (24/5).—An unqualified person cannot legally carry on the business of a chemist and druggist, and consequently may not accept an Insurance dispensing contract or sell scheduled poisons. The Poisons and Pharmacy Act, 1908, Section 3 (4), however, provides a method of forming a limited company to carry on the business with a qualified chemist as *bona-fide* manager and responsible for carrying out the provisions of the law in regard to the dispensing and sale of poisons.

*Papaveris* (1/6).—Common consent regards natural products as not coming within the definitions of the Poisons Schedules unless they are definitely mentioned or until they are prepared in some way. Thus poppy capsules and similar things can only be brought into the poisons category by a decision in the High Courts. Any preparation made from them undoubtedly comes within the Schedule and must be labelled "Poison." In the Dangerous Drugs Act the terms are "preparations and substances," but it is arguable whether an ordinary natural product is covered by the word "substance" as used there.

*P. T.* (25/5).—If a person signs a letter of guarantee to a bank on behalf of another person is the liability of the guarantor at an end after the expiration of six years, provided that he has not been called upon to make any payment in the meantime? [The duration of the liability depends entirely upon the wording of the guarantee. The guarantee may last for a definite period, or it may be a continuing guarantee that is terminable at any time by giving notice to the bank. It is unlikely that the lapse of six years would, by itself, be sufficient to put an end to the guarantor's liability.]



## Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

*Peter Oleum* (21/3).—(1) DIETS IN DISEASE.—These are well dealt with in the following books: "Hutchinson's "Food, etc." (Arnold); Burnet's "Dictionary of Medical Treatment" (Black); Cuff & Pugh's "Practical Nursing" (Blackwood). (2) We are unable to refer you to any published lists of drugs that are specially injurious to pregnant or nursing women. (3) Ample notice will be given when the new edition of "Pharmaceutical Formulas" is ready.

*H. M.* (28/3).—COLOURED ETCHING on glass is managed by painting the plain etching with a cream made of powdered sealing wax and methylated spirit. When the varnish is dry the surface of the glass is heated in a bunsen flame to melt the sealing wax. This makes a fairly permanent colouring, but is not impervious to all solvents.

*T. J. D.* (21/4).—GINGER WINE.—The quantity of alcohol in the formula you send is so small as to be negligible, but to make the wine really non-alcoholic the spiritous tinctures could be replaced by glycerin triturations of the oleo-resins. The licensing laws do not apply to the sale of non-alcoholic wines, but whether the article is, strictly speaking, a "wine" is a question which the Courts would have to decide. We think, however, that the words "non-alcoholic" are sufficient to show that the article is not what is usually understood by "wine."

*A. E. P.* (22/4).—INK FOR WRITING ON GLASS is prepared by adding mucilage of acacia to writing ink of the colour required. The ink is previously evaporated to about a third of its volume and made up with the mucilage.

*H. L. M.* (25/4).—SUPERFLUOUS HAIR.—The cause of the growth of superfluous hair on the face of women is constitutional. The electrolytic method of treating the hairs gives permanent effects, but has the disadvantage of giving a coarse texture to the skin.

*Levidia* (Johannesburg) (26/4).—(1) FIRE UNDER WATER can be produced by placing pieces of phosphorus in a beaker of water and running sulphuric acid on to the phosphorus by means of a thistle tube. (2) Metallic sodium or potassium ignite when touched with water, but there are risks in making these elements available to the public. (3) WATERPROOF MATCHES differ from ordinary matches in that the glue used in the tip composition has been made insoluble by means of potassium bichromate.

*Essence* (28/4).—(1) TOOTHACHE ESSENCE free of poison:—

|                  |     |     |       |
|------------------|-----|-----|-------|
| Ol. caryoph. ... | ... | ... | 3j.   |
| Tr. pyrethri ... | ... | ... | 3iv.  |
| Spt. camph. ...  | ... | ... | 3iij. |

(2) We are not aware that there are any proprietary rights in the words "Indian Liniment."

*J. M. W. L.* (4/5).—(1) PRESERVING BULLS' HORNS.—Any soft part or adhering flesh is scraped away and the parts rubbed with powdered alum to dry up the tissues. The horn is polished by scraping with glass or a steel scraper, then treating with the finest glasspaper, and finally with rotten-stone mixed with oil, on a flannel or felt rubber. (2) It would not be legal to lay poison for the destruction of crows.

*W. S. G.* (6/5).—INSECTS IN CARPET.—The carpet which has become infested with insects should be sent to the cleaners, who will employ a wet process if necessary for ridding it of the pest. If this is not practicable, ordinary shaking should be resorted to followed by sprinkling with *p*-dichlor benzene or a solution in spirit or petrol. If petrol is employed the treatment should take place in the open air, and the carpet exposed to the sunshine until the solvent has evaporated.

*S. W.* (Port Elizabeth) (10/5).—AGAR-AGAR EMULSION OF PETROLEUM.—See *C. & D.*, I, 1925, p. 872.

*F. E.* (12/5).—LUMINOUS PAINT.—The variety employed for watch faces is made of zinc sulphide activated with radium bromide, and the cost would probably be prohibitive for the purpose you require. For the ordinary variety see *C. & D.*, February 5, p. 182.

*D. P. S.* (12/5).—(1) The dispensing screen, the black polish of which has become discoloured, should be sand-papered and repolished. (2) WORM-EATEN WOOD.—See *C. & D.*, May 28, p. 666.

*G. L. G.* (13/5).—CUSPARIA BITTERS.—

|                       |     |     |        |
|-----------------------|-----|-----|--------|
| Angostura bark ...    | ... | ... | 3iv.   |
| Chamomile flowers ... | ... | ... | 3j.    |
| Cardamom seeds ...    | ... | ... | 3ij.   |
| Cinnamon ...          | ... | ... | 3ij.   |
| Orange peel ...       | ... | ... | 3j.    |
| Raisins ...           | ... | ... | lb. j. |
| Rectified spirit ...  | ... | ... | Ovj.   |
| Water ...             | ... | ... | Oxiv.  |

Macerate for a month, press, and filter.

*Pulv. Rhei* (16/5).—CUTICLE REMOVER.—See *C. & D.*, June 26, 1926, p. 894.

*F. E. B.* (16/5).—SANDALWOOD OIL when used for perfuming soap is generally combined with bergamot oil (1 and 5), but other perfumes suitable for obtaining the heavy Oriental "touch" are musk and verberna oil.

*E. G. I.* (16/5).—There does not appear to be any regular market for empty film spools or old film.

*P. & H.* (16/5).—ARTIFICIAL MARBLE.—The problems you set can only be worked out by experiment, but the following suggestions will be useful. Sodium silicate can be inverted into insoluble magnesium or aluminium silicate by the application of solution of magnesium or aluminium chloride. Plaster of Paris is hardened by the addition of powdered alum (4), ammonium chloride (4) to plaster (17). The alum somewhat retards the setting. You might also explore the possibilities of (1) magnesium oxychloride mixed with magnesium oxide, and (2) marble (100), glass (15), slaked lime (7), all finely powdered and mixed with sodium silicate solution.

*G. T. H.* (18/5).—LAUNDRY MARKING INK.—A little glycerin would prevent the ink drying up. Metal pens should not be employed with the ink on account of the presence of strong hydrochloric acid. A quill pen should be employed.

*E. P. J.* (21/5).—Toilet powders are tinted cream or rachel with yellow ochre.

## Retrospect of Fifty Years Ago

Reprinted from

"The Chemist and Druggist," June 15, 1877.

### Death of M. Caventou

Science has lost a great man by the death of Joseph Bienaimé Caventou. In 1820, together with Pelletier, he discovered quinine, one of the most valuable remedies that has been contributed to the repertory of pharmacy. The bark from which the alkaloid is obtained had already become famous, whether under the name of Countess's Powder (the Lady Ana de Osorio, Countess of Chinchon) or as Jesuit's Bark, so called from its introduction at Rome by the ecclesiastics who belonged to the Society of Jesus. The story of cinchona bark has been invested with many romantic incidents, most of which had more foundation in fact than similar legends. One thing is beyond a doubt, that the bark having basked in popular and courtly favour, and having been lauded in terms of extravagance, fell into general neglect, until its use was revived by Sir Robert Talbot, who is said to have sold his secret to Louis XIV. Manifestly it was a grand step to have isolated the active principle of cinchona, and imperishable honour must attach to the name of one who either himself discovered, or actively shared in the discovery of, quinine. Two years previously Caventou had isolated veratria; subsequently strychnine, brucine, and caffeine were added to the list, and he demonstrated the nature of chlorophyll, the green colouring matter in plants. This last substance is undergoing further important investigation, the nature of which may be learnt from the June number of the "Microscopical Journal," and its references to former work.





[Commenced C. & D., July 5, 1924]

**Java.**—On December 31, 1925, sixty-one civilian pharmacists were established in business in the Dutch East Indies, while the trained pharmaceutical personnel totalled 167 pharmacy assistants. The Army Pharmacy Corps consisted of one Colonel-Pharmacist and sixty Army pharmacists. The Director of the Civil Health Service is empowered to grant a certificate which entitles the holder to practise pharmacy as a pharmacy assistant. The examination for this is held twice a year in Batavia by a commission consisting of: the inspector of pharmacies in the Civil Health Service (chairman); the teacher of pharmacy in the School for Training Indian Doctors; the Director of the Preparatory Department in this school; the Director of the School for Training Pharmacy Assistants, and a pharmacist in business. Candidates are required to show that they have spent at least two years in compounding prescriptions, preparing medicaments, etc., under a pharmacist either in the Netherlands or in the Dutch East Indies, and that they have attended with success a course of instruction in the School for Training Pharmacy Assistants in Weltevreden. At the request of the candidate the examination may be conducted either in French, German or English. The examination extends to the following subjects: Dutch Pharmacopœia; compounding prescriptions; synonyms, with special reference to native names of drugs; materia medica; chemistry; physics; Dutch language, and a knowledge of either French, German or English. The examination is divided into a practical and a theoretical part. Import and export licences for dangerous drugs are granted by the Inspector of Pharmacies in the Health Service, in accordance with the provisions of the Morphine Ordinance of March 25, 1927, which embodies the resolutions passed at the second Opium Convention. The sale of opium is a monopoly of the Java Government. In the opium factory about 800 workmen are employed in the preparation of opium for smoking, which is supplied by the monopoly in tin tubes containing from  $\frac{1}{2}$  to 25 mata ( $\frac{1}{2}$  mata = 0.193 gram), which are sold at the rate of fl. 0.30 per mata. In 1925 the requisite crude opium was purchased from the Government of British India, the total quantity amounting to 1,586 piculs (1924: 809 piculs), the average price being about 4,000 rupees per picul; inclusive of freight, insurance and other charges, this price averaged fl. 3,638.98 per picul, or fl. 216.64 more than was paid in 1924. The output totalled 102,642,261 tubes (1924: 92,994,025), containing 1,501,580 thails of opium. The cost of production amounted to 53 cents (1924: 54.7 cents) per thail.

**Jersey.**—The Law on the Practice of Pharmacy and the Sale of Poisons in Jersey stipulates that no person may exercise the profession of pharmacist or druggist in the Island unless he has been authorised by the Royal Court. This permission is granted only to those holding the qualification of Pharmaceutical Chemist, or Chemist and Druggist, of the Pharmaceutical Society of Great Britain, of Pharmaceutical Chemist of the Pharmaceutical Society of Ireland, or the diploma of pharmacist of the first or second class issued by one of the schools of pharmacy of a French University. Attached to this Law are two poison schedules. Article 14 of this Law provides that a person who has been condemned by a Court of Law either in Jersey or elsewhere is debarred from practising pharmacy in Jersey, or, in the case of persons who have been authorised by the Royal Court, this authorisation will be withdrawn by the latter. An exception, however, is made in the case of convictions for political offences. The Law on Dangerous Drugs,

registered March 24, 1922, stipulates that it is unlawful for any person to import or bring into, or to export from the Island, except under licence, morphine, cocaine, ecgonine, diamorphine, and their salts, medicinal opium, any preparation, admixture, extract or other substance containing not less than one-fifth per cent. of morphine, or one-tenth per cent. of cocaine, ecgonine or diamorphine. No person shall supply or offer to supply, directly or indirectly, any of these drugs to any person, whether in the Island or elsewhere, or shall advertise any of these drugs for sale, unless he is authorised by licence or otherwise in virtue of this law to supply, import, export, or manufacture the drug, otherwise than in accordance with the terms and conditions of such authorisation. All licences or authorisations are granted by a Committee of the States, composed of three Jurats, three Rectors, three Constables and three Deputies, designated the Committee of Public Health. Packages or bottles containing any of the drugs coming within the provisions of this law must be plainly marked with the amount present, as well as its percentage, and, in the case of tablets, etc., with the amount of the drug in each article and the number of articles in each package or bottle. This does not apply to preparations dispensed by a physician or surgeon, or on a prescription.

**Jugo-Slavia.**—The kingdom of the Serbs, Croats and Slovenes is constituted by Serbia, the nucleus of the new kingdom, and territories which formerly formed a portion of the old Austrian-Hungarian monarchy, with the result that former Serbian, Austrian and Hungarian pharmacy laws are still, to a certain extent, in force in the respective territories. The administration of pharmacy pertains to the domain of the Ministry of Public Health, to which is attached a special section devoted to pharmaceutical matters. In 1925 a Chamber of Pharmacists for the whole kingdom was created, a body entrusted with the duty of promoting and safeguarding the interests of pharmacists, defending the dignity, honour and rights of the profession, and of maintaining discipline among its members. This Chamber consists of two sections, one, A, including all proprietors of pharmacies, and the other, B, all the qualified as well as unqualified pharmacy assistants. The Chamber elects a council consisting of a President, two Vice-Presidents and twelve members, of which the President, Vice-Presidents and nine members are nominated by Section A, i.e., the owners, while Section B, i.e., assistants, elects the other three members. (Full particulars of the organisation of the Chamber appeared in THE CHEMIST AND DRUGGIST, II, 1925, p. 506.) Apart from the older pharmacies established prior to 1894, the so-called "privileges" which are freely transferable by sale or heritage, the system of strictly personal concessions is in force in Jugo-Slavia, that is to say, the number of pharmacies is limited in a fixed ratio to the population (one for 4,000 inhabitants), the concessionaire is selected by the Ministry of Health from among a number of competitors, and on his death or retirement the right to conduct the business, i.e., the concession, reverts to the State. It is interesting to note that concessions have been awarded to women pharmacists, who are also to be found in Government pharmacies and laboratories and as officials in the Ministry of Health. Entrants into the profession are required to possess the matriculation certificate before undergoing a two-years' apprenticeship, followed by a course of two-years' study at a university, before sitting for the examination for the diploma, which carries with it the title of "Master of Pharmacy." However, a period of five years must be spent as an assistant in one or several pharmacies before the holder of the diploma is authorised to manage or take over a business or compete for a concession. In this connection it may be mentioned that in 1925 the Minister of Education instituted ten scholarships, each of the value of 1,000 dinars monthly, for students of pharmacy in the University of Zagreb. After the war the Serbian, Austrian, Hungarian and Croato-Slovenian pharmacopœias remained in force in the different parts of the kingdom, pending the publication of the first Jugo-Slav Pharmacopœia, at present in course of preparation; however, from September



## The C.&D. Commercial Compendium

1925, the second edition of the Serbian Pharmacopœia, issued in 1908, became the sole official standard for the whole of Jugo-Slavia. An official drug tariff is in force. All pharmaceutical specialities must be registered with the Ministry of Health, and, in the case of foreign specialities, the application for permission to import and market a specialty must be presented by a qualified Jugo-Slav pharmacist in business in the kingdom, who also assumes all legal responsibility for the preparation as soon as registration is granted. Labels and directions for use must be in the language of the country, but these particulars may, in addition, appear in other languages.

**June and July: Window Displays.**—June is really the commencement of the summer holiday season, and is a popular month for outdoor social functions. All kinds of holiday requisites which the retail chemist can supply may be shown in the window. Heavy-looking displays must be avoided and a light "summery" atmosphere suggested. Outdoor picnic dainties, such as compressed foods, should be displayed, as also should items for garden parties. Beverages, or the ingredients for producing them, sunburn lotions, face creams, skin foods, and other hot weather goods should be prominent. Every article may be linked up in some way with the idea of going away. In holiday resorts, visitors must be specially catered for. Everyday needs may figure less conspicuously and in an incidental manner. An electric fan in the window with coloured streamers attached serves the double purpose of attracting attention and of suggesting a cool atmosphere inside the shop. To add to the force of the outdoor appeal, artificial grass may be used on the window base; and a scenic background portraying a holiday scene or sports field helps to emphasise the topicality of the display.

**Juniper.**—The berries and the oil derived from juniper are the products chiefly used in pharmacy. The plant is an evergreen dioecious shrub frequently occurring in this country on chalky hills and in damp, stony woods among heather, but the berries are not collected in this country, as they can be obtained more cheaply from Italy and Hungary, where the plant is abundant. It occurs also throughout Europe. The so-called berry is not botanically a berry, as it has a different structure. The three seeds are not enclosed in an ovary, but by three fleshy bracts, which unite at the top, where their three tips can be seen. The seeds themselves bear several large oil cells partly enclosed in their hard tissue, the pulp of the fruit only containing a few smaller ones. In distillation, therefore, the oil would be obtained more fully and easily from the crushed fruits; the berries yield about 1 per cent. of it. The fruit takes two years to ripen, so it is requisite to observe that green fruits are not present, or the oil will be less than normal in quantity when distilled. The oil is difficult to keep unchanged, as it readily resinifies, and should be kept in an amber glass bottle away from light. It is soluble in proportion of 1 in 20 of 90 per cent. alcohol when freshly distilled, but the B.P. permits its solubility in a mixture of four parts absolute alcohol and four parts 90 per cent. alcohol. Oil of juniper wood is sometimes sold for that of the berries, but is inferior and cheaper. After the distillation of the berries the Rob or Roob Juniperi of the Continent is made by boiling down the decoction. The berries retain about 33 per cent. of invert sugar. Oil of juniper tar is obtained from a different species of *Juniperus*—viz., *J. Oxycedrus*, Linn., which has larger leaves and larger brown berries. The oil is distilled per decensum, as in ordinary tar. It is prepared chiefly in the mountains of the south-east of France, in the Departments of the Alpes Maritimes, Var, and Gard. The oil of juniper tar, better known as the huile de cade, is the part of the distilled tar which floats when the product is allowed to settle down, a thick tar forming the lower layer, followed by an aqueous one, and on the top a dark-olive oily layer forming the huile de cade. This is carried to Nîmes

and Avignon for sale. A test for its purity that distinguishes it from ordinary tar is that when fractionally distilled 60 to 80 per cent. should distil over between 156° to 300°, whereas of pine tar only 15 per cent. would distil over. Huile de cade is chiefly used for skin diseases. See also Cade Oil.

**Juniper Oil.**—The essential oil distilled from the berries of *Juniperus communis*, one of the *Coniferae*, is employed in medicine as a diuretic. It is also the predominating flavour in gin, to which this beverage owes its reputation for activity on the kidneys and the organs of generation. The common juniper is probably a native of Greece, and forms a small shrub growing to a height of five to ten feet in most parts of Europe, but attaining a height of thirty to forty feet in Scandinavia. The berries yield from 0.5 to 1.5 per cent. of essential oil, according to their place of origin. Natural juniper oil consists of a mixture of the terpenes pinene and camphene, with the sesquiterpene cadinene, and a small amount of oxygenated constituents. A normal oil of juniper has the following characters, which, however, may be altered by keeping, as this oil is very prone to oxidation:—

Specific gravity at 15° = 0.865 to 0.885  
Optical rotation (100 mm.) = -3° to -18°  
Refractive index = 1.4750 to 1.4880  
Ester value, 2 to 8  
Ester value after acetylation, 15 to 25

Samples are occasionally found with an optical rotation of +1° to +2°.

## K

**Kainit.**—See Potash.

**Kamala** is the Hindoo name of a product obtained by crushing and sifting the fruit of *Mallotus Philippinensis*, Mull. Arg. (N.O. *Euphorbiaceae*), a native of India, Ceylon and the Malaya. It is collected in February and March. The drug consists of reddish glands covering the fruits and neighbouring part of the plant, stellate hairs, etc., near it. When pure it is a red powder yielding only 1.37 of ash, but is often mixed with sand, from ten even up to sixty per cent. Its purity can generally be judged by stirring it up in water, the sand sinking to the bottom and the floating material consisting of the red glands and stellate hairs of the plant. It is considered to be an efficacious remedy for tapeworm, as it not only kills the worm but acts as a purgative. The dose of the pure powder is given as 30 to 120 grains. Kamala is known in India as red wars. For many centuries kamala has been used as a yellow dye for silk. The ordinary wars or wurrus of the Arabians also yields a rich yellow dye, and by the earlier Arabian writers was confused with Kamala. The true Arabian wars is known as a dull purple powder which has recently been shown to consist of the glands of *Flemingia congesta*, (N.O. *Leguminosae*). It has generally been exported to this country under its proper name of wars. The structure of the glands of kamala and wars is illustrated in Greenish's "Materia Medica," and no microscopist could mistake the two; and no pharmacognosist could mistake the purple powder of wars for the red powder of kamala. It is possible the wars was sent to this country for use as a dye, and kamala does not appear to be recorded as an Arabian or North African plant, so that the Arabs, if the import be red wars, must have done so from Bombay. For further information see *C. & D.*, II, 1926 (p. 463).

**Kew Gardens: Publications.**—The principal publications issued in connection with the Royal Botanic Gardens, Kew, are: "Index Kewensis" (q.v.), published by Milford; "Bulletin of Miscellaneous Information" (Stationery Office, recent annual volumes 10s. or 10s. 6d. each); an illustrated "Guide" (Stationery Office, 1924, 1s.); a "Guide" (Stationery Office, 1924, 6d.); various sectional Guides, published by the Stationery Office; hand-lists of several classes of plants, catalogues, and reports, obtainable at the Gardens.



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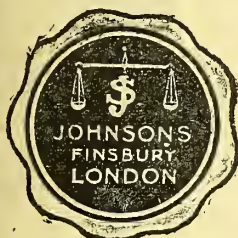
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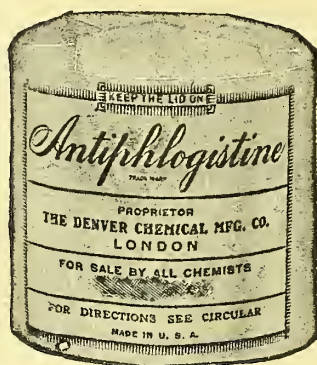
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WITH PURE  
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One Gross - Bonus 1 dozen packets  
Half Gross - Bonus ½ dozen packets  
Half gross 10's is minimum order  
accepted for Bonus purposes.

**BONUS ON 25's**  
One Gross - Bonus 2 dozen packets  
Half Gross - Bonus 1 dozen packets  
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Quarter Gross is minimum quantity.

Ordinary Prices for ASPRO are as follow:  
6d. size containing 10 tablets .. .. 4/6 doz.  
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**CONDITIONS**

The only conditions made are that the Chemist who buys on these terms undertakes to show Advertising matter in his shop window for 14 days. As ASPRO is so extensively advertised, this action will not only bring customers into the Chemist's shop to purchase ASPRO, but should enable the Chemist's staff to make other sales to the said customers. Acceptance of Bonus is considered acceptance of conditions regarding display. For Bonuses it is not necessary to buy both sizes at the same time, i.e. in single lots 6 dozen 10's or 3 dozen 25's will qualify the Chemist.

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We do not sell direct to the Chemist, all our business going through a Wholesaler. Orders may be sent either to your Wholesaler or direct to us. If to us, state the name of your Wholesaler so that we may forward the order on, and the Bonus will either be supplied with the goods or sent direct by us.

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| 2/6       | .. | .. | .. | .. | 13/9      |
| 1/8 jars  | .. | .. | .. | .. | 12/9      |
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| 1/1       | .. | .. | .. | .. | 8/4       |
| 1/8 jars  | .. | .. | .. | .. | 12/9      |
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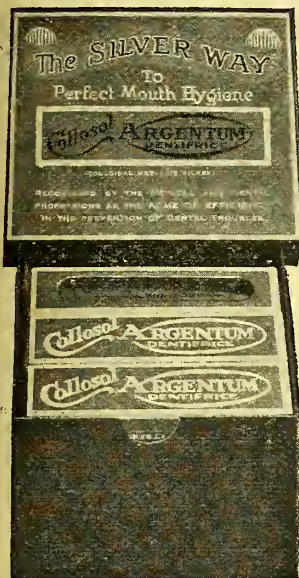
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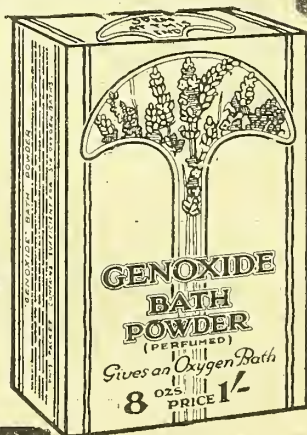
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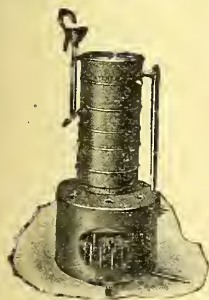
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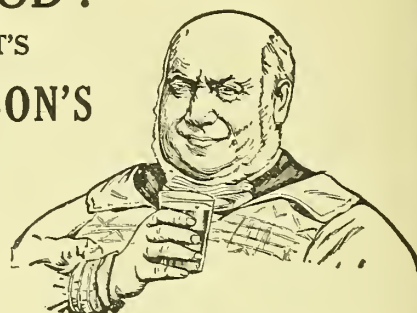
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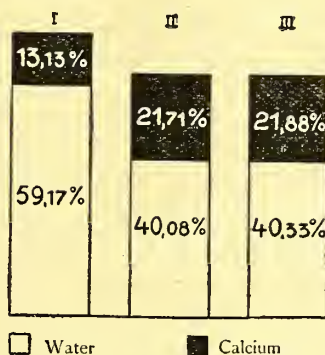


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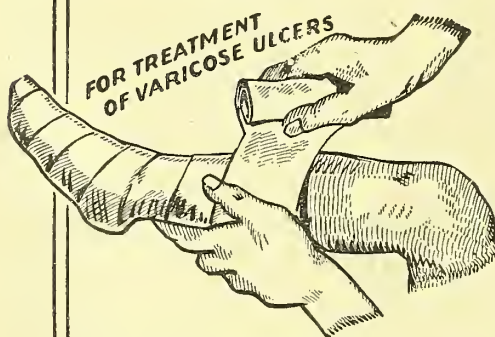
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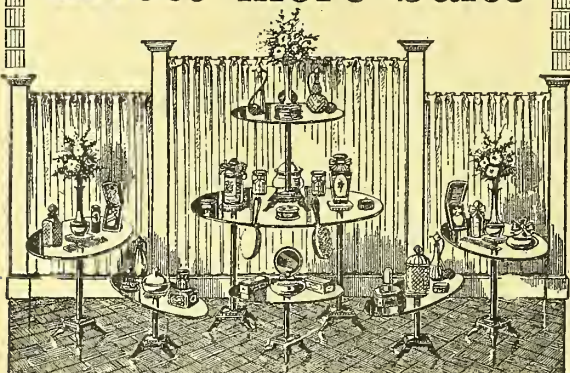
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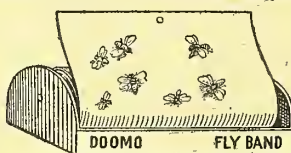
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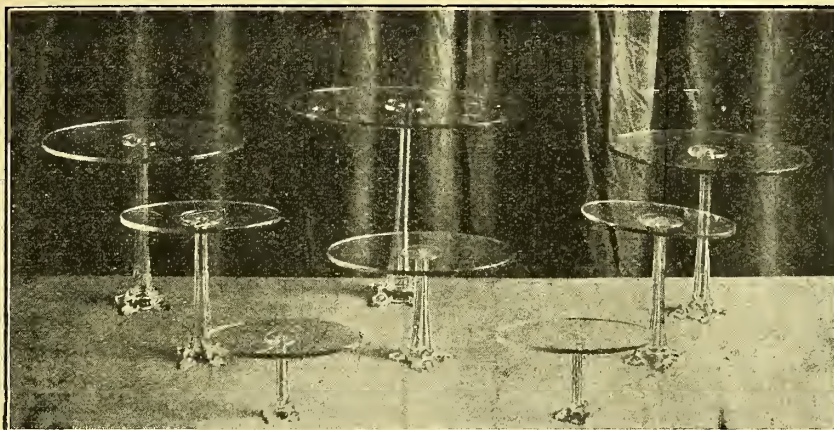


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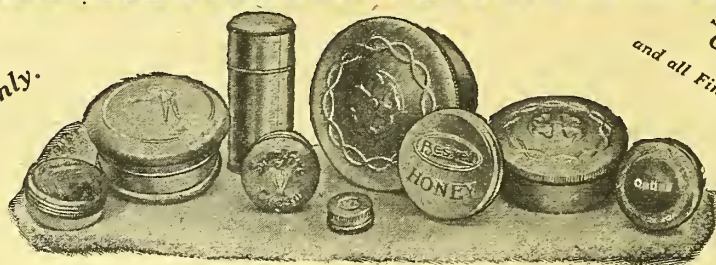
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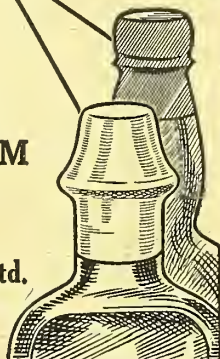
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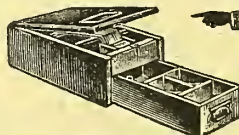
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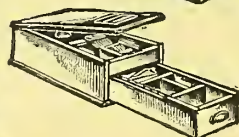


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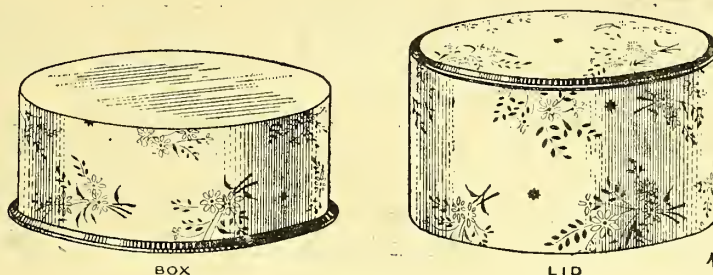


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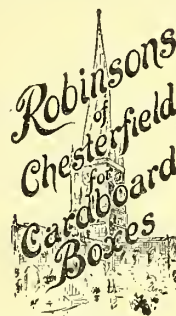
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